DOCUMENT RESUME

ED 408 767 EC 305 668

AUTHOR	Menz, Fredrick E., Ed.; And Others
TITLE	Lessons for Improving Employment of People with Disabilities from Vocational Rehabilitation Research.
INSTITUTION	Wisconsin Univ. - Stout, Menomonie. Rehabilitation Research and Training Center on Improving Community-Based Rehabilitation Programs.; National Association of Rehabilitation Research and Training Centers.
SPONS AGENCY	National Inst. on Disability and Rehabilitation Research (ED/OSERS), Washington, DC.
PUB DATE	97
NOTE	377p.
AVAILABLE FROM	Rehabilitation Research & Training Center on Improving Community Based Rehabilitation Programs, Publications Office, University of Wisconsin-Stout, P.O. Box 790, Menomonie, WI 54751; telephone: 715-232-1380; fax: 715-232-2251 ($16.95).
PUB TYPE	Books (010) -- Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC15 Plus Postage.
DESCRIPTORS	Cultural Differences; *Delivery Systems; *Disabilities; *Employment; *Job Placement; Mental Disorders; Program Design; Program Effectiveness; Program Implementation; Supported Employment; Visual Impairments; *Vocational Rehabilitation
IDENTIFIERS	Rehabilitation Research and Training Centers

ABSTRACT

This book was designed to share lessons learned from vocational rehabilitation research conducted at 11 Rehabilitation Research and Training Centers. Papers for the book were developed to provide practical guidance to the common efforts of professionals, advocates, consumers, and public figures interested in creating workable rehabilitation programs that return and sustain people with disabilities into the mainstream of their communities. Specifically, the papers address: (1) strategies for creating programs to achieve meaningful employment outcomes; (2) effectiveness of the public vocational rehabilitation programs; and (3) strategies for devising and incorporating the wishes, needs, and desires of people with disabilities into the design of rehabilitation alternatives. The book is organized into three sections. The first section, "Perspectives on How To Improve Employment Outcomes," provides slightly edited copies of presentations made to the National Employment Conference in July 1996. The second section, "Program Oriented Research," presents a series of research papers on programs that are effective or on how to make programs effective in achieving important rehabilitation outcomes. The third section, "Rehabilitation Populations Oriented Research," presents a comparable series of papers that looks at how to increase employment outcomes from the point of view of selected populations, including persons with psychiatric disabilities, mental illness, and persons who are blind or visually impaired. (Most papers contain references.) (CR)

Rehabilitation Research and Training Centers
National Association of Rehabilitation
Research and Training Centers

1997

ED 408 787

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Lessons For Improving Employment of People With Disabilities From Vocational Rehabilitation Research

by

The National Association of Rehabilitation
Research and Training Centers

Editors

Fredrick E. Menz
Julie Eggers

Paul Wehman
Valerie Brooke

EC 305668

BEST COPY AVAILABLE

Lessons For Improving Employment of People With Disabilities From Vocational Rehabilitation Research

The National Association of Rehabilitation
Research and Training Centers

Editors

Fredrick E. Menz
Julie Eggers
Paul Wehman
Valerie Brooke

Rehabilitation Research and Training Center
Stout Vocational Rehabilitation Institute
University of Wisconsin - Stout
Menomonie, Wisconsin 54751
USA

1997

Copyright © 1997

Research and Training Center on
Improving Community-Based Rehabilitation Programs
Stout Vocational Rehabilitation Institute
College of Human Development
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

This publication was funded in part by the National Institute on Disability and Rehabilitation Research (NIDRR), U.S. Department of Education, Washington, DC. The contents do not necessarily represent the interpretations or opinions of NIDRR or the U.S. Department of Education.

Table of Contents

Preface v

Introduction 1

1. **Perspectives on How to Improve Employment Outcomes** 11

Disability and Rehabilitation: Setting the Background 13
Fredrick E. Menz, University of Wisconsin-Stout

People Characteristics That Affect Employment Outcomes 33
Priscilla Lansing Sanderson, Northern Arizona University

Places. Being in Context With People and Strategies 49
Fredrick E. Menz, University of Wisconsin-Stout

Strategies That Achieve Improved Employment Outcomes 87
Kay Schriner, University of Arkansas

Lessons and Recommendations 101
Fredrick E. Menz, University of Wisconsin-Stout

2. **Program Oriented Research** 117

Service Delivery Strategies For Promoting Employment Outcomes 119
Roy C. Farley and Kay Schriner, University of Arkansas

Shared Responsibility: Job Search Practices From Consumer and Staff Perspectives 135
Sheila Lynch Fesko and David Temelini,
Boston Children's Hospital

Strategies For Increasing Rural Employment 161
Nancy L. Arnold, Brad Bernier, and Tom Seekins,
University of Montana

Community-Based Rehabilitation Programs: Achieving Sustainable Vocational and Employment Programs 179
Fredrick E. Menz, Charles C. Coker, Dale F. Thomas, Karl F. Botterbusch, and Daniel C. McAlees, University of Wisconsin-Stout

Critical Issues in the Implementation and Evaluation of Supported Employment 243
Paul Wehman, Valerie Brooke, Katherine J. Inge, and Howard Green, Virginia Commonwealth University

What Works 263
Ranjit K. Majumder, Richard T. Walls, Steven L. Fullmer, and Sita Misra, West Virginia University

3. Rehabilitation Populations Oriented Research **283**

Community Integration Through Vocational Rehabilitation For Persons With Psychiatric Disabilities 285
Judith A. Cook and Jessica A. Jonikas, University of Illinois at Chicago

The Potential and Promise of Employment Programming For Persons With Serious Mental Illness 313
Richard C. Baron, Matrix Research Institute

American Indians With Disabilities: Maximizing Employment Opportunities 327
Priscilla Lansing Sanderson and Catherine A. Marshall, Northern Arizona University

Leadership For America: The Howard University Scholar Training Model 347
Sylvia Walker and Reginald Rackley, Howard University

A Strategy to Improve Employment Outcomes For Persons Who Are Blind or Visually Impaired 363
John H. Maxson, Lynn W. McBroom, Adele Crudden, Gil Johnson, and Karen Wolffe, Mississippi State University

Preface

This book started out to be a paper for the 1996 National Employment Conference[1] on what vocational rehabilitation research was saying about employment and effective ways to deliver rehabilitation services that achieve positive employment outcomes for persons with disabilities. Eleven Rehabilitation Research and Training Centers with missions in vocational rehabilitation were queried for examples from their current research that practitioners could use to improve employment outcomes from rehabilitation. The examples the Centers provided turned out to be unpublished papers worth sharing with the field. The depth and scope of the papers changed our plans.

A 90-minute presentation was prepared and made on July 18, 1996 to the Employment Conference at Washington, DC by Fredrick Menz, University of Wisconsin-Stout; Priscilla Sanderson, Northern Arizona University, and Kay Schriner, University of Arkansas. Rather than presenting a single paper, the three presented a series of perspectives on disability issues, needs of different populations, rehabilitation and employment strategies that work, and the conditions that make rehabilitation yield positive employment outcomes. Their presentations drew widely from the Centers' research and offered Conference participants interrelated guidance on how to make rehabilitation practices, throughout the public rehabilitation system, more effective in achieving employment outcomes with people with severe disabilities.

In 90 minutes, regardless of how fast they talked or how many slides they presented, they could in no way fully represent the full value of the separate papers. This book, therefore, provides both the 11 papers and edited version of the presentations made by Menz, Sanderson, and Schriner.

---

[1] The 1996 National Conference on Effective Employment Strategies for Individuals With Disabilities was held at Washington, DC on July 17-19, 1996. This was co-sponsored by the Rehabilitation Services Administration and the Council of State Administrators of Vocational Rehabilitation, with George Washington University serving as host-coordinator to the planning committee.

Both the presentation and this book were professionally supported and endorsed by the National Association of Rehabilitation Research and Training Centers (NARRTC). The book, therefore, is the product of many members of the NARRTC family. At least 32 individuals from the 11 Centers participated in writing this book and/or provided data with which to prepare the presentation series and chapters. The series of presentations by Menz, Sanderson, and Schriner and the final versions of the 11 papers were made possible through the grants from the National Institute on Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, U.S. Department of Education that fund each Center. The observations, conclusions, suggestions, and interpretations are those of the author-researchers and, of course, do not necessary reflect those of the U.S. Department of Education.

Many individuals and organizations deserve recognition for this product and our thanks for the quality of this joint product. First, Joe Matthews, State Director of the Montana Division of Vocational Rehabilitation Services, and Ralph Pacinelli, Commissioner for Regions III and IV, Rehabilitation Services Administration, are thanked (or should be held responsible) for requesting a plenary session at the conference on research that has relevance for employment of people with disabilities. Our appreciation goes to Fred, Priscilla, and Kay for the professionalism with which they synthesized the papers, the proficient way they represented the research from their colleague Centers, and the adroit manner in which they interpreted and extrapolated practical recommendations for improving practices from their colleagues' work.

Tom Seekins and Keith Rhea at the Montana Center prepared display materials and a map of the Centers' distribution across the United States used in the presentation and in the NARRTC booth at the conference. Sylvia Walker and colleagues at Howard University are appreciated for providing a setting and opportunity for Fred, Priscilla, and Kay to complete and integrate their presentations. The conference organizers deserve recognition for providing technical support, brailling, and for making the presentation fully accessible. Dan McAlees from Wisconsin deserves our thanks for coordinating Centers' displays and manning the NARRTC Conference booth. Conference participants are especially appreciated for attending so well to the sometimes detailed, sometimes humorous, and sometimes too subtle rendering of the research and applications offered to them and for their questions and interest since then.

Once the conference was over, the manuscripts needed to be completed and the real work of preparing this book began. Drafts needed to be converted to final papers. Without exception, authors responded with professionalism to critiques and suggestions we made and generally met timelines, as long as we continued to extend them. Paul Wehman and Vicki Brooke, at Virginia Commonwealth University, and Fred Menz and Julie Eggers, at the University of Wisconsin-Stout, shared in the technical editing of the chapters and provided the substance of critique to authors.

Julie Eggers and Julie Larson at the University of Wisconsin-Stout kept the effort alive in the eyes and ears of the authors, provided editorial comment and review of each chapter, pushed authors for references and their corrections, and coordinated submissions and reviews of electronic and paper copies throughout publication. Jeanne Roberts and Vicki at Virginia Commonwealth, and Fred picked up on the conference themes and collaborated on the design of the book cover and brochure for the book. Jeanne Kussrow-Larson at Wisconsin read and edited all chapters for the King's English and APA's requirements.

Julie Larson at Wisconsin handled all other aspects of the book's preparation and publication: layout, chapter formatting, graphics, tables, and final production and printing. The University of Wisconsin-Stout Research and Training Center provided funding for printing and initial distribution to Conference participants who requested copies, and both, Virginia Commonwealth and Wisconsin made sure that the book was widely publicized.

This text makes available much valuable, new information from vocational rehabilitation research. It also reveals much about Research and Training Centers. As this book could not have been completed without the dedication and full collaboration of the staff from the Centers. Likewise, the research accomplished and presented in it could not have been achieved without the availability of the Center's Program at the National Institute on Disability and Rehabilitation Research. The scope and wide applicability of research come about through the divergent missions of the Centers. The goals of the public rehabilitation program are substantial and are clearly represented in this small sampling of results.

The interrelatedness and practical value of this combined body of work (and this really does only represent a sample of the research) could not have been accomplished without coordination of Centers around core missions of importance to the public program or without the maturation of programs of research and technical resources represented within this network. That such a body of relevant products can come through collaboration among this segment of rehabilitation is a tribute to the rehabilitation profession. The recognized bonds between consumers, disability issues, individual needs, rehabilitation science, professional training, and rehabilitation practice throughout the national vocational rehabilitation program and its components at the federal, state, community, and organizational levels ensure that the goals of individuals with disabilities for quality employment and community participation are achieved in the public and private sectors.

The National Association of Rehabilitation
Research and Training Centers
April 1997

Introduction

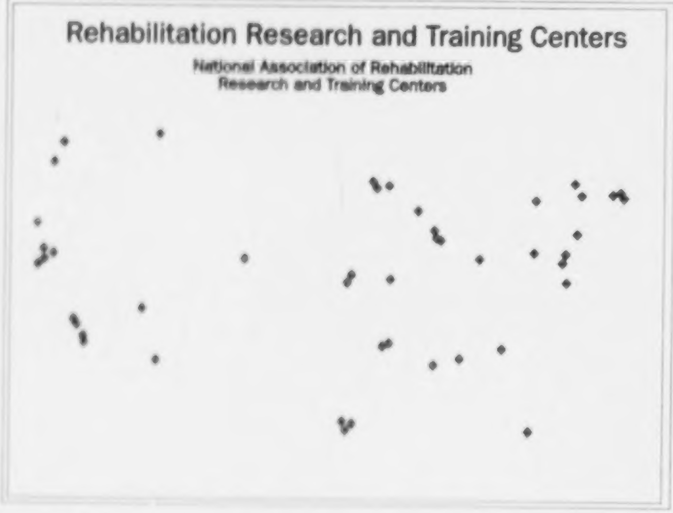
Intents and Overview

This book is intended to share some of the lessons we are learning from vocational rehabilitation and disability research conducted by Rehabilitation Research and Training Centers (RTC Program) funded by the National Institute on Disability and Rehabilitation Research (NIDRR). The papers were written in mid-1996 from current research of 11 contributing Centers. While a representative collection of "lessons," this volume in no way represents the sum total of research on employment outcomes from Centers or the NIDRR.

Rather, it is intended to provide practical guidance and stimulation to common efforts of professionals, advocates, consumers, and public figures to create workable rehabilitation programs that return and sustain people with disabilities into the mainstream of their communities. The volume shares three types of findings: (a) findings about what these participating Centers are coming up with on how to create programs to achieve meaningful employment outcomes; (b) findings about how effective the public rehabilitation program is in serving needs of people with disabilities; and (c) findings that provide guidance on how to devise, refine, and incorporate increasing understanding of disability issues, needs, and desires into designs of the rehabilitation alternatives presented to consumers with rehabilitation needs.

Organization of the Book

The book is organized into three sections. The first section provides slightly edited copies of presentations made to the National Employment Conference in July, 1996 which drew from across drafts of the collected papers included in this volume. The second section presents a series of research papers on programs that are effective or on how to make program effective in achieving important rehabilitation outcomes. The third section presents a comparable series of papers that looks at how to increase employment outcomes from the point of view of selected populations.



Rehabilitation Research and Training Centers

National Association of Rehabilitation
Research and Training Centers

The RTC Program Through NIDRR

The RTC Program, sponsored by the National Institute, includes Centers that have diverse missions in disability and/or rehabilitation issues. Each of the present 46 Centers, shown on the above map, is priority driven and is charged with solving problems related to rehabilitation service delivery, public policy, and employment, independent living, psychosocial, medical, disability population, and/or family topics.

Centers are charged through the Rehabilitation Act and fully subscribe to being a national resource working with rehabilitation professionals in services, policies, and agencies. Each center conducts research and training and provides technical assistance to state agencies, provider organizations, and consumers and their families. They have resources, knowledge, and solutions acquired from research and development and are prepared to aid in identifying and implementing demonstrated practices and solutions to the needs of consumers and constituencies. Like rehabilitation in general, Centers are a lesser known and underutilized resource available with options to help professionals improve the quality and outcomes of vocational rehabilitation.

Many Centers conduct programs of research and training that directly address employment issues, while others deal indirectly with conditions that shape the employment of people with disabilities. Some Center projects and activities are therefore more clearly relevant to program goals of Title I. Other Centers are directed to create building blocks for future programs, emerging populations, and strategies that will sustain solutions to disability issues inimical to rehabilitation.

NARRTC Goals

This book was prepared under the auspices of the National Association of Rehabilitation Research and Training Centers (NARRTC). The NARRTC is a collegial organization, founded nearly 20 years ago, to promote rehabilitation research with the purpose to "promote full inclusion of persons with disabilities in American society through applied research and training." The NARRTC represents all NIDRR funded Research and Training Centers to encourage collegial and scientific development within the disciplines of rehabilitation and in the interest of people and programs engaged in rehabilitation.

Research and Training Centers are distributed across the nation. They are typically located at universities, rehabilitation programs, and consumer centers where research expertise and rehabilitation expertise are available. RTCs are defined through the Rehabilitation Act, operationalized by the NIDRR, and nationally promoted by the NARRTC, and they adhere to certain expectations and standards.

NARRTC members fully recognize and respect the gravity of need underpinning the purposes for our research. Centers expect and are committed to conducting research, training, development, demonstration, and dissemination to improve the outcomes of rehabilitation and improvement in the achievement of employment by people with disabilities. Expectations and collegial efforts of Research and Training Centers are to ...

- Collaborate to identify priority issues relevant to people and rehabilitation programs;
- Conduct research consistent with highest standards of scientific excellence;
- Pursue solutions for individual employment, independence, and community integration;
- Collaborate to promote greatest application of Centers' products and findings;
- Conduct programs that directly and indirectly affect people with

disabilities;

- Produce knowledge and products that benefit consumers, agencies, providers, and practitioners; and
- Pursue issues to help eliminate disability-environmental-societal barriers to individuals' exercise of their civil rights.

The series of original papers was voluntarily prepared by 11 of the 46 Centers funded by the NIDRR for the National Conference. We also drew upon research from other Centers, particularly the Center responsible for disability and rehabilitation statistics at the University of San Francisco. The 11 Centers and 33 staff just happened to be from the first 11 Centers approached with this idea for a presentation. There are many other Centers that could have been asked and would have equally been able to contribute to this effort.

National Employment Conference Presentations

The National Employment Conference was held at Washington, D. C., in July, 1996, and was co-sponsored by the Rehabilitation Services Administration and the Council of State Administrators of Vocational Rehabilitation Programs, with George Washington University as host-coordinator to the planning committee. Held in conjunction with the 75th Anniversary of the rehabilitation program, the conference was an opportunity to share sound practices, create opportunities to build upon those practices, and publicly applaud and further the quality of vocational rehabilitation as provided to the public client in states and communities across the United States.

This was an intense, well attended, and truly national effort to bring programs, practices, practitioners, educators, trainers, and even researchers together to share and learn. The NARRTC's members prepared a 90-minute series of media and papers in a plenary session. The RTCs were fortunate to have an opportunity to participate in that Conference. The following pages share both the presentations and the original papers prepared by the members.

Perspectives on How to Improve Employment Outcomes

Five interrelated papers were presented at the National Employment Conference drawing from the collection of papers provided by the participating Centers. Four of the papers took a viewpoint around which to organize their reviews of rehabilitation research: That of the public and what is known about the capacity of the public program to address national disability problems, research that looks to issues of concern to individuals with disabilities, issues that relate to the generalizability-utility of research findings, and practices that are emerging from research that deserve attention and greater utilization in rehabilitation practice. A fifth paper provided a brief summary of findings across the four papers, some conclusions, and irreverent guidance to the attending audience on what is known from research that could be applied by critical participants as they review various options provided by their colleagues. The five papers are briefly described:

Disability and Rehabilitation: Setting the Background. Fredrick E. Menz, University of Wisconsin-Stout. Menz provides a brief introduction to employment and disability information, including an overview of outcomes from the vocational rehabilitation programs. Centers' information is supplemented with outcome data from the Rehabilitation Services Administration and Department of Labor studies.

People Characteristics That Affect Employment Outcomes. Priscilla Lansing Sanderson, Northern Arizona University. Sanderson's presentation provides a scan of selected research from Centers on the characteristics of people and how those characteristics aid, influence, and affect rehabilitation and employment of people with disabilities. Her presentation looks at both disability and cultural influences of positive -- and negative -- outcomes.

Places. Being in Context With People and Strategies. Fredrick E. Menz, University of Wisconsin-Stout. Menz's presentation extracts research on rehabilitation from the standpoint of place, as in context, setting, conditions, and location. That presentation looks at a part of the body of research and demonstration that suggests those conditions that practitioners and programs should be cognizant of that may constrain the effectiveness of rehabilitation strategies. The contexts of poverty, community, geography, expectations, and rehabilitation resources are examined.

Strategies That Achieve Improved Employment Outcomes. Kay Schriner, University of Arkansas. Schriner's paper presents from research and demonstration efforts of Centers' that specifically contribute to "promoting employment for people with disabilities." This presentation extracts from the body of research and reviews it against a career development concept for employment. Schriner draws guidance for employment from the dual foci of Center research on model building and on program and policy evaluation. A sampling of concrete strategies is offered from among the contributing Centers.

Lessons and Recommendations. Fredrick E. Menz, University of Wisconsin-Stout. Menz's intent with this section was "to draw together, tease, and entice [the audience] with pithy conclusions and a few words about our potential to fulfill our common goals in disability, rehabilitation, and employment." The segment provides some thoughts from the papers on what we know and what we need to do to make the vocational rehabilitation program increasingly effective. This adapted segment is worth reading if you are willing to put up with some irreverent (or libelous) interpretation of research and what we do and need to do in rehabilitation.

Findings From Program Oriented Research

The following six papers come from Centers with missions that are focused upon the vocational rehabilitation system, rehabilitation processes, or outcome-oriented programs. Researchers at these Centers examine needs and barriers to achieving an organized body of practices that aid people to secure jobs and remain employed. The six chapters provide complementary guidance on how to create, establish, and maintain vocational rehabilitation that produces meaningful employment outcomes for the public client. The several papers also provide both concrete guidance and extrapolations on where and how to strengthen the vocational rehabilitation enterprise.

Service Delivery Strategies For Promoting Employment Outcomes. Roy C. Farley and Kay Schriner, Arkansas Research and Training Center in Vocational Rehabilitation, University of Arkansas, Fayetteville and Hot Springs, Arkansas. Farley and Schriner draw from the research and development activities of the Arkansas Center and its knowledge and technology base on strategies to assist consumers to obtain and keep employment. Strategies are presented for identification of strengths, needs, and planning of services; for involving consumers in decision making; for assessment and preparation programs; for preparing individuals for employment; on employer development; and on collaboration among community entities leading to employment. Their review provides rationale and information on how strategies are being demonstrated and it concludes with information about where specific strategies can be obtained.

Shared Responsibility: Job Search Practices From Consumer and Staff Perspectives. Sheila Lynch Fesko and David Temelini, Boston Children's

Hospital. This paper focuses on what consumers and staff have to say about which job search strategies are the most effective in producing outcomes such as integrated employment and job satisfaction. Fesko and Temelini provide an overview of job search practices, report key findings about job search practices identified through a national survey of rehabilitation providers and rehabilitation counselors, and present implications for integrating employment job search practices.

Strategies For Increasing Rural Employment. Nancy L. Arnold, Brad Bernier, and Tom Seekins, The University of Montana. Arnold, Bernier, and Seekins address two major, interrelated problems faced by people with disabilities in rural communities: employment and transportation. Their paper examines evidence garnered from Montana's research on state agency, public policy, and rural strategies to solve these two problems. Research findings on self-employment as a viable employment outcome from vocational rehabilitation and the feasibility of Supported Volunteer Rural Transportation Systems are discussed as these options might be successfully applied in other rural settings.

Community-Based Rehabilitation Programs: Achieving Sustainable Vocational and Employment Programs. Fredrick E. Menz, Charles C. Coker, Dale F. Thomas, Karl F. Botterbusch, and Daniel C. McAlees, University of Wisconsin-Stout. This paper examines the "program side" of building and sustaining community-based employment programs. Events affecting the full emergence of community-based programs are briefly discussed. The working definitions and central concept of community-based rehabilitation are first presented. Subsequently, Menz, Coker, Thomas, Botterbusch, and McAlees review significant barriers, findings, and issues identified through their research on what makes for success in community-based employment programs. Findings from several research and demonstration projects conducted on community-derived vocational programs are used to develop recommendations on how to sustain community-based programs through design, implementation, and stabilization stages. Finally, Menz and colleagues propose characteristics that are evident among quality community-based programs.

Critical Issues in the Implementation and Evaluation of Supported Employment. Paul Wehman, Valerie Brooke, Katherine J. Inge, and Howard Green, Virginia Commonwealth University. Wehman, Brooke, Inge, and Green provide a contemporary review of the successes of their program. They demonstrate how supported employment has become an increasingly widespread rehabilitation process and how it is considered a rehabilitation outcome. This very timely article provides current data on the contributions, successes, rates of implementation, and underlying issues that remain to achieving greater application. Importantly, Wehman and colleagues carefully examine policy, philosophical, and program issues that presently define its parameters.

What Works. Ranjit K. Majumder, Richard T. Walls, Steven L. Fullmer, and Sita Misra, West Virginia University. Majumder, Walls, Fullmer, and Misra analyzed fiscal year 1992 closure data for the state-federal vocational rehabilitation program to calculate probabilities for successful closure and for closure into competitive employment for a variety of target populations. Probabilities for competitive employment were computed for 285 subsets of the 148,188 cases reported closed in 1992. Subsets reported upon were based upon 19 high priority disability conditions and 15 contributing factors. The paper briefly reviews the literature on what works and what appears to limit success in employment. Majumder and colleagues provide extensive tabular findings on differential probabilities and focus their discussion to identifying specific factors that appear most likely to impede achieving competitive outcomes from vocational rehabilitation for the various target populations of the program.

Findings from Rehabilitation Populations Oriented Research

The research and the guidance provided in the following collection of papers are from a few of the Centers that have missions that are doubly focused upon a target population (disability, cultural) and vocational rehabilitation outcomes. The five papers prepared by these Centers reflect the perspective of disability or cultural needs for which vocational rehabilitation practices must account or as unique characteristics of individuals that can influence vocational outcomes. The researchers offer suggestions about effective practices and how to provide responsive vocational rehabilitation to persons with psychiatric disabilities, to persons with serious mental illness, to persons who are visually impaired, and to persons from minority cultures. The two papers that focus upon rehabilitation issues of persons of color offer suggestions on how these persons can increase their participation in rehabilitation programs and how they can improve their achievements of employment and presence in rehabilitation leadership.

Community Integration Through Vocational Rehabilitation For Persons With Psychiatric Disabilities. Judith A. Cook and Jessica A. Jonikas, The University of Illinois at Chicago. Cook and Jonikas take an outcome-oriented approach to understanding the efficacy (services examined under controlled conditions) and effectiveness (intervention success in non-controlled studies) of rehabilitation services. This exacting review of the research evidence provides a synthesis of the employment and community integration literature. The authors present a review of current knowledge about effective rehabilitation, derive implications for service delivery and program development, and conclude with practical and policy suggestions for better meeting the vocational needs of these individuals.

The Potential and Promise of Employment Programming For Persons With Serious Mental Illness. Richard C. Baron, Matrix Research Institute. Baron draws from the Center's ongoing research and clinical practices of the Pennsylvania Department of Psychiatry to heighten the employment of persons with serious mental illness. This chapter distills some of the "good news" and "bad news" about access, use, and outcomes for persons involved in the mental health and the vocational rehabilitation systems. Baron offers evidence and observations about how such problems and successful practices may be used to create more "good news."

American Indians With Disabilities: Maximizing Employment Opportunities. Priscilla Lansing Sanderson and Catherine A. Marshall, Northern Arizona University. Sanderson and Marshall provide a national picture of under-employment and of barriers to employment for American Indians and Native Alaskans, review data on their disability and health conditions, and present some of the conditional practices the Arizona Center's research is identifying as appropriate among American Indians. The chapter provides examples of alternative forms of employment and offers suggestions on how to provide rehabilitation that is more appropriate to the cultural and employment needs of American Indians.

Leadership For America: The Howard University Scholar Training Model. Sylvia Walker and Reginald Rackley, Howard University. Individuals with disabilities and, especially, individuals with disabilities who are also from minority backgrounds are underrepresented throughout rehabilitation. The Howard Model was designed to prepare minority trainees, including persons with disabilities, to participate in the workforce in leadership positions. Walker and Rackley discuss the unique features of the training model and suggest strategies that are resulting in positive outcomes for minority professional participation in various aspects of the rehabilitation process.

A Strategy to Improve Employment Outcomes For Persons Who Are Blind or Visually Impaired. John H. Maxson, Lynn W. McBroom, Adele

Crudden, Gil Johnson, and Karen Wolffe, Mississippi State University. This paper reports on recommendations and plans to cause systems changes in services for persons with low vision or blindness. This plan was jointly developed by the American Foundation for the Blind (AFB) and the Center using issues identified at the 1995 Employment Summit that included United States and Canadian leaders. The plan addresses issues external to rehabilitation and consumer systems and issues related to the rehabilitation system, consumer organizations, and availability of training.

1

Perspectives on How to Improve Employment Outcomes

Disability and Rehabilitation: Setting the Background

Fredrick E. Menz
University of Wisconsin-Stout
Rehabilitation Research and Training Center on
Improving Community-Based Rehabilitation Programs

In this part of the session, we provide a general background[1] on people with disabilities, their involvement in employment, and to what degree rehabilitation has positively affected the economic livelihood of people with both moderate and severe disabilities. Some general conclusions about how well we really are doing are presented along with some guidance wherein we may be able to get beyond current employment standards.

Disability and Employment in the Past 50 Years

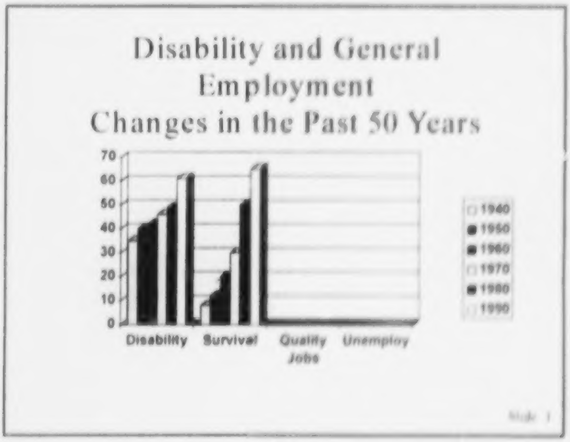
Let's begin by looking at trends in disability and employment over the past 50 years. The next two slides are "representational," though rooted in labor market and disability statistics for the past 50 years. Along the abscissa are "rates" of occurrence or effectiveness; in a common comparative metric. Along the X axis, I've plotted "representative" disability, survival, quality of jobs, and unemployment rates for the past five decades.

---

[1] Four sources were mostly used to develop this background picture. They were the Rehabilitation Services Administration's most recent report to Congress, U.S. Bureau of the Census reports since 1993, disability statistics reports provided by LaPlante in 1996 from the Research and Training Center for Disability Statistics (LaPlante & Carlson, 1996; LaPlante, Kennedy, Kaye, & Wenger, 1996), and performance reports on the state programs provided by the West Virginia University Research and Training Center. General Accounting Office reviews of rehabilitation programs and recent information from the President's Committee on Employment of Persons With Disabilities were used to supplement concluding comments. Where we went beyond the specific findings from any of those sources, we have generally noted those instances.

Disability and Survival

In the first slide we see a generally consistent increase in rates of disability, with remarkable increases in the last two decades where we began to expand our definitions to be inclusive of people with differing disabilities. Up until the 1970s, disability was largely described in terms of physical, cardiac, or sensory impairments; in other words, largely based around traditional body systems dealt with in medical sciences. These slides suggest dramatic improvements in both recognition of diversity of conditions of disability and our ability to not only prolong the lives of people with disabilities but to achieve more meaningful survival from injury, trauma, congenital, and progressive causes of impairment and disability as our medical and behavioral sciences advanced.



Disability and General Employment Changes in the Past 50 Years

Slide 1

Since the 1970s, mental illness, traumatic injury, learning disabilities, substance abuse, and other impairments have come to our attention and are now conditions recognized as disabilities. Rates have increased, in other words, as we have become more adept at identifying problems of disabilities that affect employment participation and community presence. Our programs and institutions have become more cognizant of individual potential, needs, and the significant loss brought about by isolation and low expectations for individuals with impairments that limit functional participation.

BEST COPY AVAILABLE

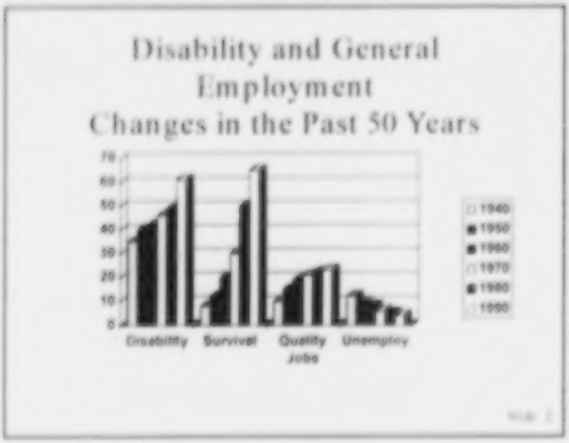
This cognizance has come about in medical, vocational, and psychosocial sectors of the rehabilitation enterprise. Deinstitutionalization, reforms in classification approaches, and better information about why and how people become work-disabled and how individuals can become productive members in society, rather than in isolation from general society, have occurred in these later four decades.

Beginning in the 1950s, we began to change our expectations and invented procedures to affect survival rates of infants, others faced by developmental conditions (e.g., prenatal, aged), and those victims of trauma (e.g., abuse, violence, vehicular). Dramatic increases in survival, in the 1960s through the present, came about as trauma, public awareness, and corollary medical practices and treatment alternatives (e.g., surgical, pharmacological) brought interventions and technological sophistication not only to the hospital emergency room but to the site of occurrence of injury and to prenatal care of mothers and at-risk fetuses and to the homes and workplaces of persons with disabilities.

Most of us sitting in this audience today remember the low expectancy rates for persons with spinal cord injuries or traumatic brain injuries; for babies whose mothers contracted rubella or had indulged in drugs, for infants who were RH-negative; for infant and childhood victims of abuse; or for children and young adults who came from impoverished circumstances, contracted polio, or were born with significant developmental impairments. Some in this audience today are testimony to our successes, are highly valued members of their communities, and would not be here in this audience were the odds not changed through the accomplishments in rehabilitation policy, practice, and research.

Quality of Jobs and Unemployment

In this same period of time, quality of jobs and employment opportunities in the nation did not increase with anywhere near the same consistency as was occurring on the medical and vocational rehabilitation frontiers. As this slide suggests (Slide 2), quality of jobs increased through the 1940s and 1960s as our post-war economy expanded following World War II and the Korean conflict. American industry was on the rise, while European, South American, and Asiatic nations were scrambling to adopt the productions processes that produced such volume and seemingly unsurpassed quality of products from America during those wartime and near post-war years.



Disability and General Employment
Changes in the Past 50 Years

As a global economy has emerged, though, we have seen a leveling off in both quality of jobs and availability of stable jobs, even while seeing an increasing full-economy, as depicted through decreasing unemployment rates (i.e., rates for persons actively seeking jobs). Significant downsizing, elimination of secure and skill-demanding jobs, the exporting of substantial numbers of jobs, and increased numbers of less desirable jobs have lead marginalized persons to cease to seek employment and have begun to constitute a population of drop-outs from general labor market statistics (in much the same regard as have persons with disabilities or from minority populations who have traditionally not been included in labor market statistics).

These "workforce behaviors" are all following in the footsteps of something called "a globalized employment market." Our successes in survival and in rehabilitation of people with disabilities, not just from the emergency room or the trauma unit, but into adulthood and senior citizen status, are being realized against a landscape wherein the availability of quality employment opportunities (quality defined in terms of potential longevity, benefits, career or advancement capability) has significantly leveled off, becoming stagnant as we move through the 1990s.

The picture of employment opportunity in the 1990s is now in the shadow of increasing competition for fewer quality opportunities by more people with capabilities that often exceed those of our people and their employment and training histories. People with disabilities (and other disenfranchised populations) compete for jobs with limited benefits or

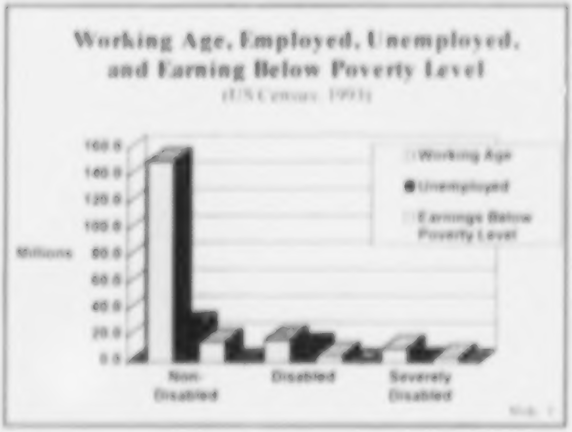
BEST COPY AVAILABLE

potential longevity and advancement, as higher quality jobs are absorbed by populations with considerably greater experience and activity in the competitive-integrated employment sector.

People With Disabilities

Employment and Unemployment

As of 1993 (using data from the U.S. Bureau of the Census), there are 150.8 million working age adults, 28 million of whom are unemployed and seeking employment. Of those working, 15.4 million had earnings that put them below poverty levels (Slide 3). Of the 16.9 million people with disabilities of working age, 11.4 million are unemployed and seeking work, and 5.1 million are earning below poverty levels. Rates of employment among working-age adults without disabilities and who are working are nearly three-times those for disabled adults and 10-times the rate for persons with severe disabilities: 76 percent of working age adults are employed, 27.8 percent of individuals with a work-related disability are employed, and only 7.5 percent of adults with severe disabilities are employed.



Working Age, Employed, Unemployed, and Earning Below Poverty Level

(US Census, 1993)

Earnings Below Poverty

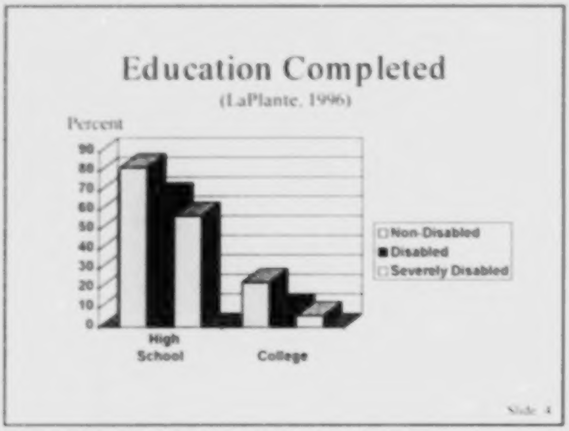
Among persons with severe disabilities counted in the labor market statistics, nearly 4 million of the 10.4 million in the workforce who have work produced incomes have earnings that put them below the poverty level and only .8 million are seeking employment. Unemployment rates are

BEST COPY AVAILABLE

under 19 percent for all working-aged adults, but nearly 67 percent for adults with disabilities. And while approximately 10 percent of the non-disabled workforce have earnings below poverty levels, 30 and 38 percent of working disabled and working severely disabled adults are earning below poverty levels.

Education Completed

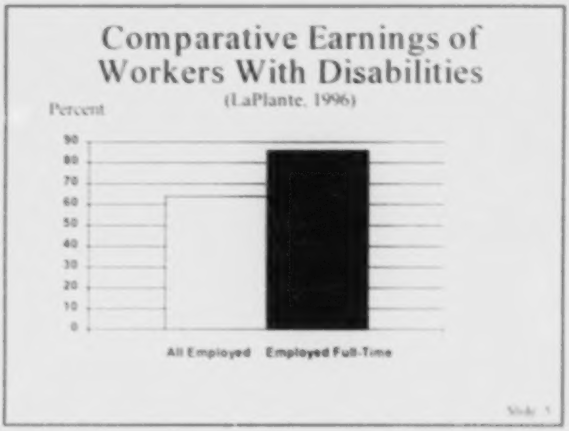
This next slide (Slide 4) reports comparative educational levels attained by non-disabled and disabled populations. Eighty-four and 23 percent of non-disabled persons completed high school or college. Comparable figures for persons with disabilities are 66 and 9 percent for person with a work-related disability and 57 and 6 percent for persons with severe disabilities. People with disabilities lag behind their non-disabled contemporaries, both in terms of basic education attainment and in completing the advanced education that would permit them to enter occupations with careers opportunities and above-poverty earnings potential.


Education Completed
(LaPlante, 1996)

Slide 4

Comparative Earnings and Income Gains

Earnings for people with disabilities are substantially lower for persons with disabilities and comparative income gains, since the 1980s, have not been anywhere near as great as those gains for non-disabled working adults. Comparative earnings of persons with disabilities (Slide 5) show their earnings to be one-third less (i.e., 64%) than earnings for all employed non-disabled workers and nearly one-quarter less (i.e., 86%) than the earnings of non-disabled persons working full-time.



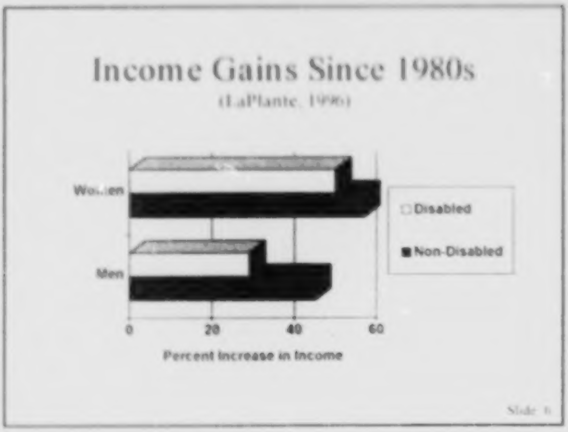
Comparative Earnings of Workers With Disabilities

(LaPlante, 1996)

Since the 1980s, income gains have been achieved by people with and without disabilities, though the rates are distinctively less for both men and women (Slide 6). Income gains for men and women without disabilities were 45 and 57 percent, respectively. Income gains for persons with disabilities were 29 and 49.5 percent for men and women. Further, income gains of men were two-thirds of the gains for men without disabilities and of women with disabilities.

Earnings levels of women, with and without disabilities, have long been suppressed, for many social and economic reasons. These figures mask the continuing fact that earnings of women are well below those of men (with and without disabilities) and these figures represent only *relative* gains in earnings (from very low 1980s level of earnings), but do not substantially change the higher rates of poverty-level earnings for women and especially women with disabilities (see Menz, Hansen, Smith, Brown, Ford, & McCrowey, 1989) on earnings levels of women with disabilities over a 20-year period of time).

BEST COPY AVAILABLE



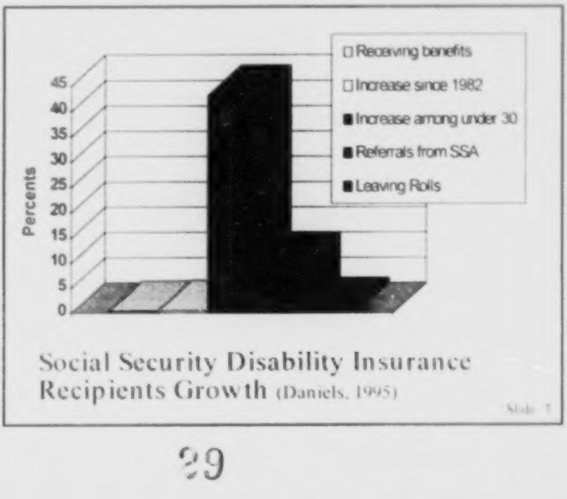
Income Gains Since 1980s

(LaPlante, 1996)

Slide 6

Social Security Disability Increases

Dramatic increases in the numbers of Social Security Disability Insurance (SSDI) beneficiaries reported on this slide (Slide 7) represent both a boon for people with disabilities and a serious public policy problem. SSDI payments are intended to provide supports for people who are unable to engage in the workforce, due to one or more significant disabilities. People with severe disabilities have requirements for long-term support and are now successfully accessing this source of support. People with severe disabilities, though, comprise 35.8 percent of current enrollees.



Social Security Disability Insurance Recipients Growth (Daniels, 1995)

Slide 7

Daniels (1995), of the Social Security Administration, reports that there are 6.7 million individuals who now qualify for and receive SSDI payments. The number of recipients in 1995 was twice the number in 1982. Public resources cannot keep pace with the rate at which these public rolls are expanding. Besides decreasing federal revenues, there are two factors that represent a serious concern to both rehabilitation delivery and public policy guiding rehabilitation.

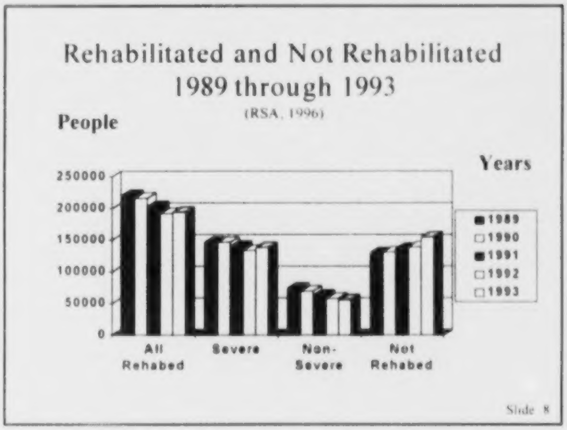
The first is the age of the typical new recipients. Forty-three percent of the increase to new enrollees are individuals under 30 years of age. A simple actuarial estimate suggests that these recipients will draw SSDI benefits for between 30 and 40 years.

The second equally important factor is that only one-half of one percent leave the rolls each year. Though only 10 percent of SSDI recipients are referred to vocational rehabilitation by state disability determination units. Continued growth, without movement of persons with temporary or non-severe work-related disabilities off these rolls and back into gainful employment, is not just a problem for the social security program. The pool of funds available for seriously affected individuals served in vocational rehabilitation is rapidly decreasing.

In combination, these may represent a serious threat to very important long-term supports for people with significant, life-long, extraordinary disability needs. As the vocational rehabilitation program continues to serve people who are more severely disabled, potential cuts to this resource will affect the dollars accessible by people with severe disabilities whose potential to live in the community and work productively requires long-term funding from a source such as SSDI. SSDI funds may not be available for new individuals whose disability requires extensive supports for which that program is intended.

Rehabilitation Outcomes: 1989 - 1993

State vocational rehabilitation agencies serve approximately 1 million persons per year (Slide 8). Between 1989 and 1992, growth in numbers of persons served was between 4,000 and 8,000 annually, with a substantial increase of 100,000 people accepted in 1993, coinciding with passage of the 1992 Amendments and introduction of "presumed eligibility." Across the same period, the proportion of people rehabilitated who had severe disabilities increased from 66.5 percent in 1989 to 69.7 percent in 1992 and, when last reported in 1993, was at 71.3 percent.

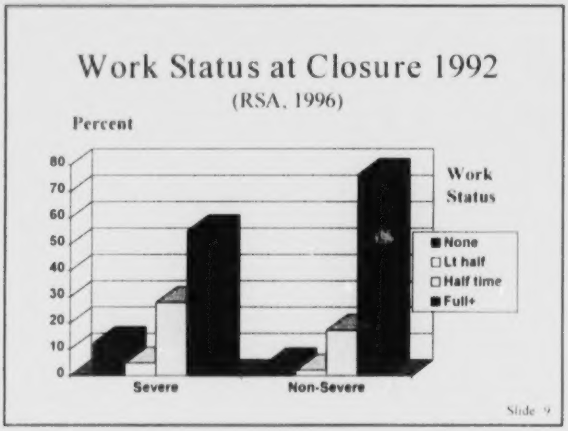


Rehabilitated and Not Rehabilitated
1989 through 1993
(RSA, 1996)

The average numbers of months to rehabilitate was 22 at a cost of $2,518 in 1991, while in 1992, the length of time increased (in keeping with increases in numbers of persons with severe disabilities, perhaps) to 23.1 months at an average cost of $2,740. While the numbers of non-severely disabled rehabilitated declined over the period (in part due to order-of-selection giving priority for the most severely disabled), continuing increases in successful closures among persons with severe disability over this period are positive indicators of the program (GAO, 1993) fulfilling the Congressional expectation that the vocational rehabilitation program be the safety net for people with disabilities who otherwise would not be served.

Work Status at Closure

Nearly half of the persons with severe disabilities and approximately one-quarter of the persons with non-severe disabilities are, however, underemployed (e.g., limited income, not full-time) at closure (Slide 9). Average hours of paid work for successfully closed persons with non-severe disabilities was 35.45 hours per week and 29.63 hours per week for successfully rehabilitation persons with severe disabilities. Six-point-four percent of persons with non-severe disabilities and 17.2 percent with severe disabilities were working less than half-time per week for wages (e.g., closed as student, unpaid family worker); 17.3 percent and 27.8 percent were working half-time, and 76.3 percent and 55 percent were working full-time at closure in 1992.

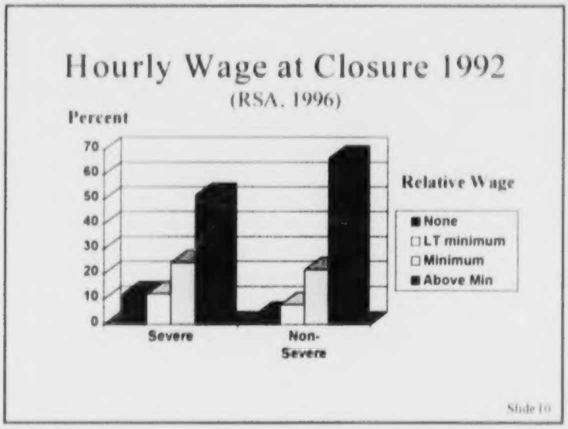


Work Status at Closure 1992

(RSA, 1996)

Hourly Earnings at Closure

Average hourly wage rates among successful closures with earnings was above minimum wage in 1992, with averages for non-severe at $6.38 and $5.24 for persons with severe disabilities (Slide 10). However, 24 percent and 8.1 percent of severely and non-severely disabled successful closures had hourly earnings less than minimum wage. Two-thirds of non-severely disabled were earning hourly wages above minimum wage and slightly more than half (51.4%) of severely disabled closures were earning above minimum wage.

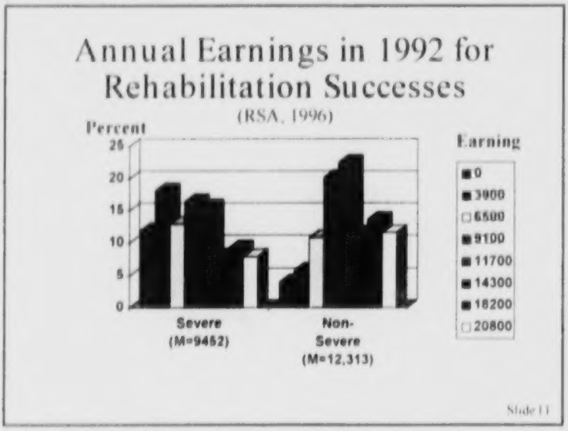


Hourly Wage at Closure 1992

(RSA, 1996)

Annual Earnings at Closure

The poverty level in 1992 was $8,840 annual income for a single person, when the categorized data on this slide (Slide 11) would apply. That level is slightly lower than the $9,100 category for annual earnings, which I used for the corresponding year's "poverty-level."

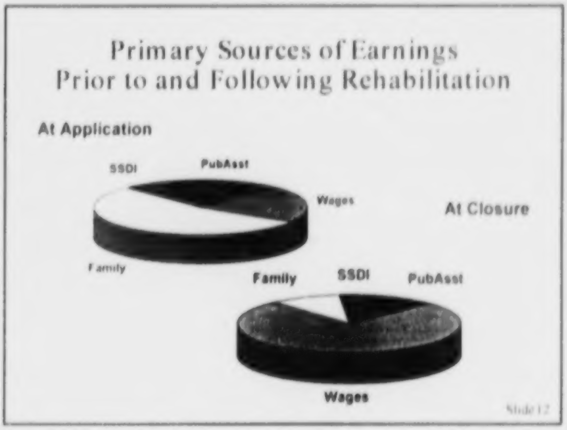

Annual Earnings in 1992 for Rehabilitation Successes
(RSA, 1996)

Slide 11

Annualized income from wages, assuming this to be an individual's primary economic support, leaves significant proportions of rehabilitated persons in poverty. Average annual earnings for all successful closures with income was $10,294 in 1992. Corresponding annual income from wages was $12,313 and $9,452 for closures without and with a severe disability, respectively. Annual earnings from wages for approximately 53.9 percent of successful closures are at or below the poverty level (i.e., at or below $9,100). Nearly six-tenths (58.2%) of non-severely disabled closures had earnings above the poverty level, while only one-third (33.5%) of closures with severe disabilities were earning above the poverty level.

Reliance on Various Sources of Support

Annual sources of support upon which an individual may rely include wages, public and private assistance, social security, and resources of the individual's family. Dramatic shifts in reliance upon selected sources are found for successful closures from the rehabilitation program (Slide 12). Reliance upon wages is the most remarkable change in outcome for successfully closed individuals in both 1991 and 1992 years (again, the most recent years for which data are compiled). The proportion of the individual's income that was based upon wages was 18 percent at application and 75 percent at closure.



The impact of this shift from non-wage to wage income as the major source of support is most apparent as we examine family and public sources. At application, family income represented 44.5 percent, public assistance was 15 percent, and SSDI comprised 5.5 percent. Following rehabilitation, family and public assistance each account for less than 10 percent and SSDI represents less than 4 percent of the support resources the individual relies upon rehabilitation.

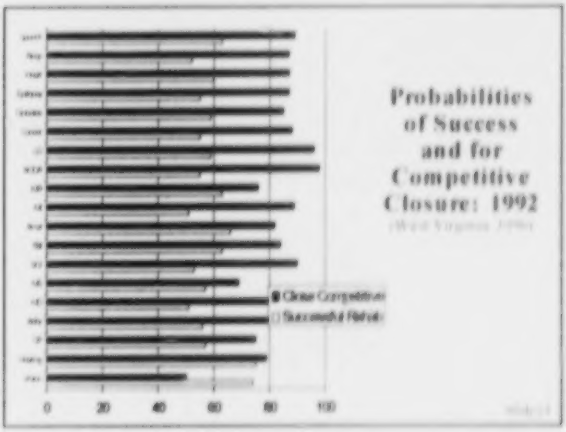
Differential Probabilities of Competitive Employment

Up to this point we have reflected upon the status of people with disabilities, participation in the employment market, and the extent to which people with severe and non-severe disabilities are rehabilitated, participating in competitive employment, and have earnings from employment wages. These next three slides present several additional important factors that need to be incorporated in our thinking about and appraisal of rehabilitation's capability to affect the employment and economic plights of people with disabilities. Severity, type of disability, and other factors present at the time of entry to rehabilitation affect the degree to which they succeed (or we succeed with individuals) and suggest how well we work with (or are effective with) different disability populations.

Data for these slides come from an analysis of 1992 closure data conducted by the West Virginia Center for this presentation and from the Rehabilitation Services Administration 1996 report to Congress. Successful rehabilitants were broken into "competitive" (including unsupported competitive, supported, entrepreneurial) and non-competitive (homemaker, student, sheltered) closures. Percents of competitive closures were then calculated for selected disabilities based upon primary disability. The disabilities were selected given high interest and that there would be sufficient numbers to derive reliable estimates of "probability of competitive closure." We grouped disabilities together for this presentation based upon senses, body systems, disease, cognitive-social, and trauma associated with disability type. In doing so, we recognize that we have stepped slightly beyond the West Virginia analysis.

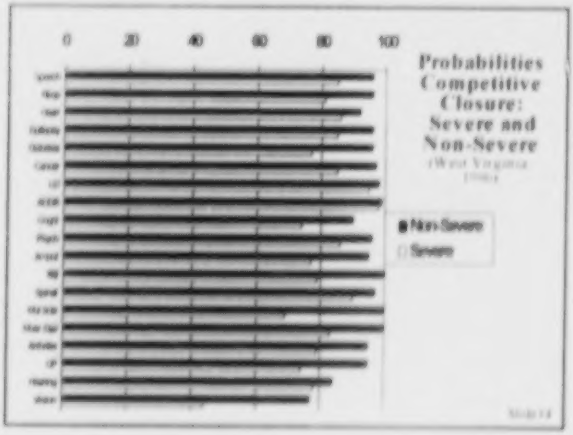
Differential Predictors of Competitive Closures

The average rehabilitation success rate across disabilities for FY 1992 was 69.7 percent (RSA, 1996), with variation from around 50 percent (i.e., mental illness, muscular dystrophy, respiratory) to 75 percent (i.e., visual or hearing impairments) (Slide 13). Among those successfully rehabilitated, the average percent of successful individuals who went into competitive employment was 83 percent, with lows in the 50 and 70 percent range (visual impairment, multiple sclerosis) and highs near and over 90 percent (e.g., speech, mental illness, spinal cord, learning disabilities, substance abuse).


Probabilities of Success and for Competitive Closure: 1992

(West Virginia 1996)

Nearly 95 percent (94.7%) of non-severe, successful closures were competitive placements (Slide 14). Virtually all categories of disabilities had placements into competitive employment at rates in excess of 92 percent, except when working with visually impaired and hearing impaired persons (77% and 84%). Widest variation from an average of 80.3 percent was found in closures into competitive employment among severely disabled clients. Placements in excess of 90 percent were found among spinal cord, substance abuse, and learning disabilities populations. The lowest placement rate was for persons with severe vision impairments (44%), while most typical placement rates were generally in the middle to upper 70s.

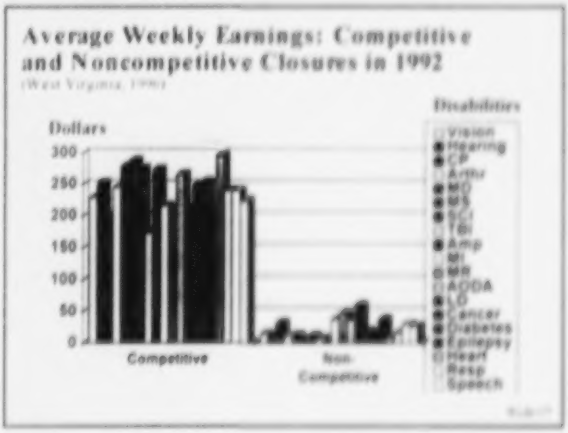


Weekly Earnings for Competitive and Non-Competitive Closures

As with closures into competitive employment, weekly earnings also vary widely by disability type (Slide 15). Average weekly earnings for persons closed into competitive employment (supported and unsupported employment, self-employment) are nearly 10 times those of individuals closed into non-competitive statuses (e.g., sheltered employment, as student, homemaker), as might be expected. Also, there is wide variability in weekly earnings among disability populations within competitive and non-competitively closure statuses.

Most competitively employed closures had weekly earnings in excess of $200, with lowest earnings attained by persons with mental retardation

($138), and earnings at or around $200 per week attained by persons with traumatic brain injury, cerebral palsy, learning disabilities, epilepsy, and mental illness. Highest weekly earnings were reported for individuals with heart disease, multiple sclerosis, multiple dystrophy, spinal cord, and amputation (above $270 per week).


Average Weekly Earnings: Competitive and Noncompetitive Closures in 1992

(West Virginia, 1996)

The average weekly earnings for an individual closed into a non-competitive status is $26.41, compared to $223.83 per week for a competitively placed closure. Several populations closed as non-competitive report weekly earnings less than $10 (heart disease, traumatic brain injury, multiples sclerosis, amputation). Further, weekly wages above $35 for non-competitive placements are only reported for individuals with mental retardation, mental illness, epilepsy, and alcohol and drug abuse. Highest weekly earnings for non-competitively closed rehabilitants was $59.36 for individuals with learning disabilities.

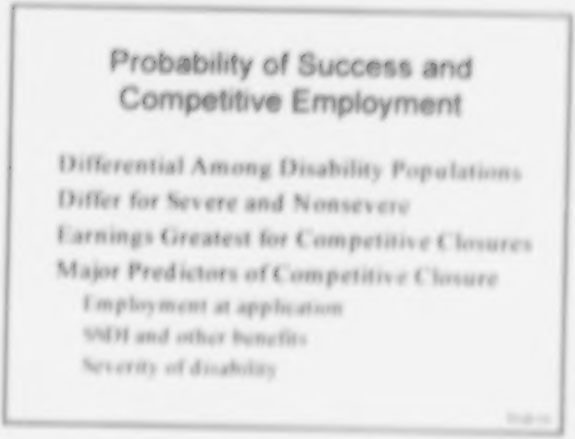
Predictors of Closure from Employment, Social Security, and Public Assistance

The probability of being competitively closed is related to whether or not the person received SSDI and/or other public assistance at application (and during rehabilitation). The probability of being closed into competitive employment if employed at application was 86 percent. Only 59 percent of those who were closed successful were closed to competitive employment if they were receiving SSDI, as compared to 84 percent for those who did not receive SSDI.

A cause-effect relationship is not implied in these statistics, of course. The statistics only reflect that severity of disability often creates needs for which public resources are appropriate, including public assistance and SSDI. The data though reflect disincentives or confounding factors or the greater complexity which need, accessed resources, and desired changes will bring to achieving competitive outcomes from vocational rehabilitation by persons with severe disabilities.

Some Final, General Comments About Background

This last slide (Slide 16) presents some very general information and observations about disability, employment, poverty levels, predictors of positive outcomes, and of the consequences and successes of the public rehabilitation program.



Probability of Success and Competitive Employment

Differential Among Disability Populations
Differ for Severe and Nonsevere
Earnings Greatest for Competitive Closures
Major Predictors of Competitive Closure
  Employment at application
  SSDI and other benefits
  Severity of disability

Slide 16

- The proportions of persons with severe disabilities being served in the state vocational rehabilitation program continue to increase in response to requirements (a) to presume eligibility and (b) to give priority to persons with the most severe disabilities.
- The proportions of persons successfully rehabilitated who have severe disabilities have gradually increased between 1989 and 1992.
- Employment rates for people with disabilities have remained relatively constant. However, latest Department of Labor data indicate improvements in rates of employment for persons with severe

disabilities (see recent release from the President's Committee on Employment of Persons With Disabilities in the *Washington Post*, July 8, 1996).

- Wages and earnings for many persons rehabilitated by the public rehabilitation program put them above the poverty level, but there remain significant proportions of individuals (especially those with severe disabilities) whose earnings from wages are not sufficient for them to be self-supporting.
- There continues to be a strong relationship between poverty and disability. Solutions to disability and corresponding poverty for individuals with disabilities appear to be intertwined.
- Reliance upon family and public sources of support is vastly reduced subsequent to successful rehabilitation, with approximately three-quarters of support for successful rehabilitants being derived from wages in 1991 and 1992.
- SSDI benefits and public assistance comprise less than 4 percent of income at closure and less than 10 percent of the sources of income for individuals closed successfully from the rehabilitation program in FY 1992.
- Major predictors of competitive closure are (a) employment at application (positive), (b) SSDI recipient (negative), and (c) severity of disability (negative).
- Probability of competitive closure into competitive employment is widely differential based upon (a) type of disability and (b) severity of disability.
- Successfulness of the rehabilitation programs is recognized through (a) rehabilitants are more likely to be employed and have higher earnings (GAO, 1993) and (b) the rehabilitation population is steadily becoming more severe.
- Rates of successful rehabilitation continue to slowly increase over time (GAO, 1993), more severely disabled persons are being successfully rehabilitated (RSA, 1996), and successful closures have increased 4 percent, 6 percent, and 8 percent for the past 3 years (Schroeder, 1993).

References

Daniels, S. (1995). *Building Partnerships*. Part of panel presentation at the Fourth Annual Project Directors' Meeting, January 30, 1995 at Washington, DC. Also, see Social Security Administration, *Social Security Bulletin. Annual Statistical Supplement. 1994*. Washington: U.S. Printing Office.

GAO (Government Accounting Office) (1993). *Vocational rehabilitation: Evidence for federal program's effectiveness is mixed*. Report to the Chairman, Subcommittee on Select Education and Civil Rights, Committee on Education and Labor, U.S. House of Representatives. Washington, D.C.

LaPlante, M. P., & Carlson, D. (1996). *Disability Statistics Report. Disability in the United States: Prevalence and Causes, 1992*. Washington: U.S. Department of Education, Office or Special Education and Rehabilitation Services (NIDRR).

LaPlante, M. P., Kennedy, J., Kaye, H. S., & Wenger, B. L. (1996). *Disability Statistics Abstract 11. Disability and Employment*. San Francisco: University of California at San Francisco, Disability Statistics Rehabilitation Research and Training Center.

Menz, F. E., Hansen, G., Smith, H., Brown, C., Ford, M., & McCrowey, G. (1989). Gender equity in access, services and benefits from vocational rehabilitation. *Journal of Rehabilitation, 55*(1).

RSA (Rehabilitation Services Administration) (1996). *The State Vocational Rehabilitation Program: Report to the U. S. Congress*. Washington: U.S. Department of Education, Office or Special Education and Rehabilitation Services (RSA).

Schroeder, F. (1995). Presentation to the Spring Meeting of the Council of State Administrators of Vocational Rehabilitation, on March 27, 1995, at Washington, D.C.

U.S. Bureau of Census (1993). See McNeil, J. (1993). *Americans With Disabilities: 1991-1992*. U. S. Bureau of the Census, Current Population Reports, Series P70, #33. Washington: U. S. Government Printing Office.

West Virginia (1996). See the chapter *What Works* in this volume.

Author's Note: For further information contact Fredrick E. Menz, Research and Training Center on Improving Community-Based Rehabilitation Programs, University of Wisconsin-Stout, 214 10th Avenue, Menomonie, WI 54751. Phone: 715-232-1389, Fax: 715-232-2251, TDD: 715-232-5025. E-mail: menz@uwstout.edu

People Characteristics That Affect Employment Outcomes

Priscilla Lansing Sanderson
Northern Arizona University
American Indian Rehabilitation
Research and Training Center

As rehabilitation professionals, one of our concerns is with the employment of people with disabilities.

Services for People From All Walks of Life

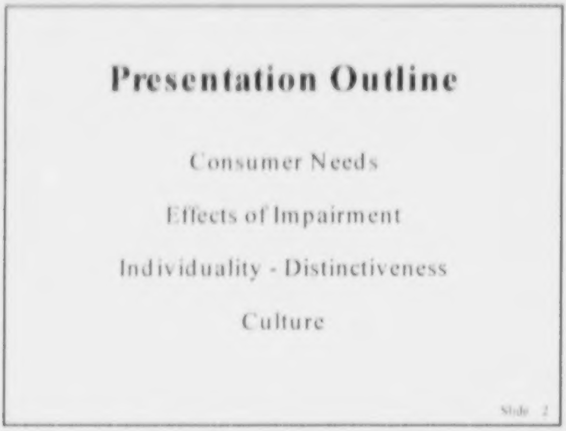
Persons who are at poverty level
Persons who are unemployed
Recipients of social security benefits
Recipients of public assistance
Ethnic minorities with diverse cultures and history
High school graduates with low reading level
People with various disabling conditions and limited resources and employment opportunities

Slide 1

Providing rehabilitation services means working with people from all walks of life (Slide 1) such as persons who are at poverty level, persons who are unemployed, recipients of social security benefits and public assistance, ethnic minorities bringing a variety of cultures and history, high school graduates with low reading levels, and people with various disabling conditions with limited resources and employment opportunities.

Studies have been conducted by Rehabilitation Research and Training Centers to identify unique needs of persons with various disabling conditions; unserved and underserved populations; and persons from rural, reservations, and urban areas.

In the past decade, the goals of rehabilitation have significantly expanded beyond "adapting individuals to fit into employment roles." The expectations held by individuals with disabilities and by many rehabilitation professionals are greater now than they have ever been before (Menz, 1997). Expectations of consumers include the right to know employment options, being provided financial and emotional support during rehabilitation services, and development of rehabilitation plans consistent with their unique needs. This paper discusses findings that the Rehabilitation Research and Training Centers have identified (Slide 2).



Presentation Outline

Consumer Needs

Effects of Impairment

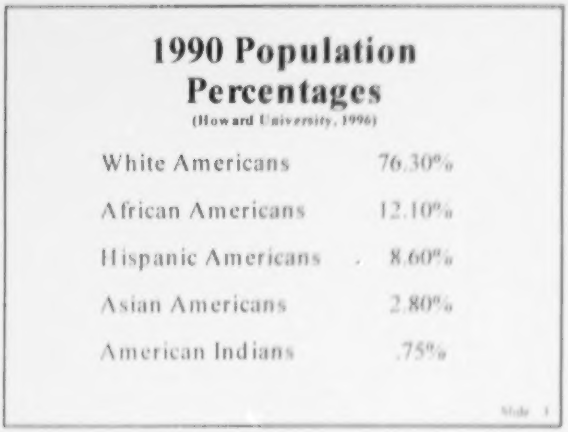
Individuality - Distinctiveness

Culture

Slide 2

Demographics

Although there has been some increase in employment opportunities, the unemployment rate for individuals with disabilities continues to be 67% (Louis Harris and Associates, 1995, cited in Fesko & Temelini, 1997). People with disabilities who are employed earn much less than those who are not disabled. The 1990 census (Walker, Saravanabhaven, Williams, Brown, & West, 1996) reported the United States population as follows: White Americans, 76.3 percent; African Americans, 12.1 percent; Hispanic Americans, 8.6 percent; Asian Americans, 2.8 percent; and American Indians, 0.75 percent (Slide 3).



1990 Population Percentages

(Howard University, 1996)

White Americans	76.30%
African Americans	12.10%
Hispanic Americans	8.60%
Asian Americans	2.80%
American Indians	.75%

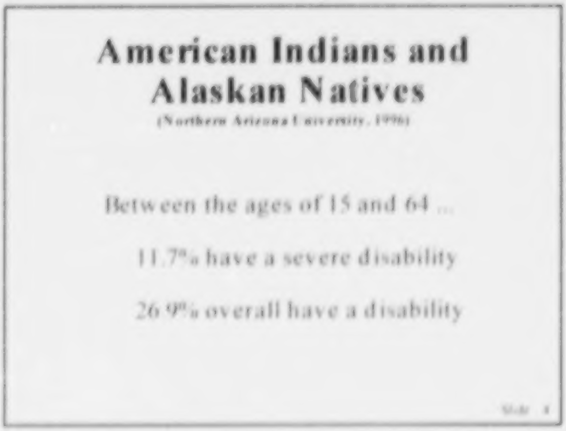
Slide 3

Rural Areas

Adults with work disabilities who live in nonmetropolitan areas of the United States are less likely to be in the workforce, more likely to be unemployed, and likely to earn less and have a smaller disposable income than their urban counterparts (Seekins, 1992, cited in Arnold, Bernier, & Seekins, 1997). Adults with disabilities in rural areas must often decide whether they are willing and able to leave their homes in rural areas to seek higher paying employment and needed rehabilitation services in the cities. This is often an extremely difficult decision as it may involve leaving their immediate family, extended family, and friends, as well as familiar current medical providers and support group.

African Americans, Hispanics, and American Indians

There is documentation (Bowe, 1991; Thornhill & HoSang, 1988; Walker, Asbury, Rodriguiz, & Saravanabhaven, 1995, cited in Walker & Rackley, 1997) that disability is significantly higher among African Americans (31.37%) and Hispanic Americans (29%) are almost three times as high as it is for white Americans (11%) (Slide 4). Data concerning poverty rates are consistent across all age groups. Further, the correlation between low socioeconomic status and disability is well documented. Low socioeconomic status African American and Hispanic families are at greater risk for disabilities throughout their life span. This correlation between low socioeconomic status and disability is also found among the approximately 2 million American Indians and Alaskan Natives residing in the United States.



American Indians and Alaskan Natives

(Northern Arizona University, 1996)

Between the ages of 15 and 64 ...

11.7% have a severe disability

26.9% overall have a disability

Slide 4

Consumer Support While in Rehabilitation

Several Rehabilitation Research and Training Centers identified needs for natural support among consumers participating in supported employment and other employment outcomes.

Consumers need natural support in both the home and work environments in order for them to be able to live a quality of life that could bring high morale and satisfaction with their life activities (Slide 5). Vocational rehabilitation counselors need to holistically provide natural support to the consumer and not just focus on employment natural support. Also, it is important to provide continued support during the training and adjustment period once the individual begins to work (Fesko & Temelini, 1997).

Other types of support from family and friends can provide ideas about the type of work they could do, suggestions where to look for a job, and assistance in transportation (Fesko & Temelini, 1997). Interest and help provided by family and friends in the consumer's employment search can contribute to higher success rates in locating jobs that are compatible with consumer interests and capabilities. Assurances that natural support continues after rehabilitation services are completed should be made in writing with the employer, co-workers, family, and friends.

Consumer Support While in Rehabilitation

Natural Support
Family and Extended Family
Friends
Employer
Co-Workers
Supervisors

A better understanding is also needed of the role that natural supports can play in attaining vocational outcomes for persons with psychiatric disabilities. Given their needs for ongoing support coupled with shrinking service delivery dollars, it may be necessary to make greater use of friends, co-workers, and supervisors to offer long-term employment supports to persons with psychiatric disabilities (Cook & Jonikas, 1997).

While consumers report using family and friends for job leads and ideas, staff do not report this group as very involved. Working more closely with families may assist the rehabilitation staff with important leads, since family or friends may have a better sense of their community and areas of potential employment opportunities. Rehabilitation staff cannot know the communities for every person with whom they work. The job search may be improved by making use of the knowledge and affiliations that exist through the family's established networks (Fesko & Temelini, 1997).

Identified Needs

Rehabilitation Research and Training Centers have documented the needs of consumers with varied disabling conditions and of unserved and underserved populations. Through this effort, identified needs have been used by policy makers to guide improvements of rehabilitation services to consumers through vocational rehabilitation. Some examples of improved rehabilitation services are that state-federal rehabilitation counselors now must determine their consumers' eligibility for services within 60 days of date of application; the establishment of tribal vocational rehabilitation programs under the Section 130 of the Title I, Rehabilitation Act; stronger collaboration between the consumer and counselor in developing the Individual Written Rehabilitation Plan (IWRP); and the mandate to provide services to those groups who have been underserved.

The following are brief overviews of needs identified by Rehabilitation Research and Training Centers:

- Large numbers of individuals require periodic access to rehabilitation resources throughout their lives. Community-based programs (Slide 6) will have to marshal existing community resources (e.g., fiscal, employment, social, networks) and work with consumers and their personal supports (e.g., their family, co-workers) to maintain the individual's community achievements (e.g., competitive employment, social integration, independent living) (Menz, 1997).

Community-Based Programs

(University of Wisconsin-Stout, 1996)

Use of existing community resources (e.g., fiscal, employment, social, networks)

Work with consumers and their personal supports (e.g., their family, co-workers)

Maintain the individual's community achievements (e.g., competitive employment, social integration, independent living)

Slide 6

- Research on traumatic brain injury called the Head Injury Re-entry Project (Project HIRe) (Slide 7) was conducted as a rural supported employment demonstration project (Thomas & Menz, 1993). The study found that individuals with traumatic brain injury had disabilities so severe that they required additional job coaches and support services that went beyond what is traditionally provided to supported employment clients in similar facilities (Menz, 1997).

Head Injury Re-entry (HIRe)

(University of Wisconsin-Stout, 1996)

The persons served had disabilities so severe that they required additional job coach and support services that went beyond what is traditionally provided to supported employment clients in this facility.

Slide 7

- The Support Networks (Slide 8) study examined basic elements of community-level assistance. This research was to develop and test a preliminary model for coordinating community support through rehabilitation facilities for persons with chronic mental illness. One hundred and ten consumers and 27 managers in six community-based programs in Minneapolis-St. Paul, Milwaukee, and Chicago were interviewed. The top five problems identified by consumers were (a) finding and keeping a job, (b) financial help, (c) friendship and intimacy, (d) doing things for fun, and (e) housing (Menz, 1997).

Support Networks Identified by Persons With Serious Mental Illness

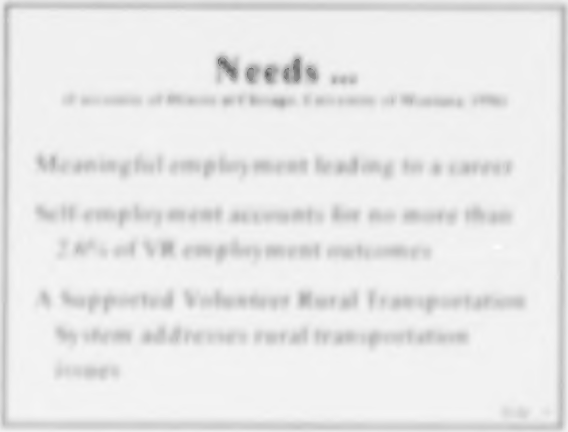
(University of Wisconsin-Stout, 1996)
(N = 108)

Finding and Keeping a Job	68%
Financial Help	59%
Friendship and Intimacy	59%
Doing Things for Fun	58%
Housing	48%

Note: Rank order and multiple responses

Slide 8

- In 1992, Beall conducted a consumer-driven survey of needs of persons with psychiatric disabilities throughout the state of Virginia. One of the most important findings to emerge was the need for meaningful employment that might lead to a career, rather than to dead-end, minimum wage jobs (cited in Cook & Jonikas, 1997) (Slide 9).



Needs ...

([illegible])

Meaningful employment leading to a career

Self-employment accounts for no more than 2.6% of VR employment outcomes

A Supported Volunteer Rural Transportation System addresses rural transportation issues

Slide 9

- Although self-employment is used as a vocational rehabilitation closure more frequently in rural than in urban states (Arnold, Seekins, & Ravesloot, 1995), it still accounts for no more than 2.6% of employment outcomes nationally (Arnold, Bernier, & Seekins, 1997).
- A Supported Volunteer Rural Transportation System was developed and evaluated to address rural transportation issues. Results indicate that a Supported Volunteer Rural Transportation System can be an effective way of providing rides to people with disabilities who cannot drive and who live in communities with limited public transportation (Arnold, Bernier, & Seekins, 1997).

Job Satisfaction

Recent literature reports many positive findings including reports by consumers that they are satisfied with the support they receive and are satisfied with the job they have obtained (Fesko & Temelini, 1997). However, two findings of concern are that most individuals are obtaining jobs at minimum wage or slightly above and that few of the jobs provided fringe benefits. Since consumers are less satisfied in the areas of compensation, fringe benefits, and career advancement opportunities, there is a continuing need to address these issues.

Effects of Functional Limitations

Generally, functional limitations are the result of any combination of medical, social, psychological, and/or emotional disabilities. Support from family members, extended family, and friends of consumers becomes crucial to their maintaining independent living and actively participating in their rehabilitation program.

Self-Esteem

Several studies have explored the connection between self-esteem and the employment of persons with psychiatric disabilities. In one naturalistic follow-up study of 88 persons with psychiatric disabilities (Arns & Linney, 1993), feelings of self-esteem, life satisfaction, and coping mastery were significantly higher among those who had experienced such positive changes in employment as becoming employed or moving to better jobs (Cook & Jonikas, 1997).

Individuality: Distinctiveness and Cultural Considerations

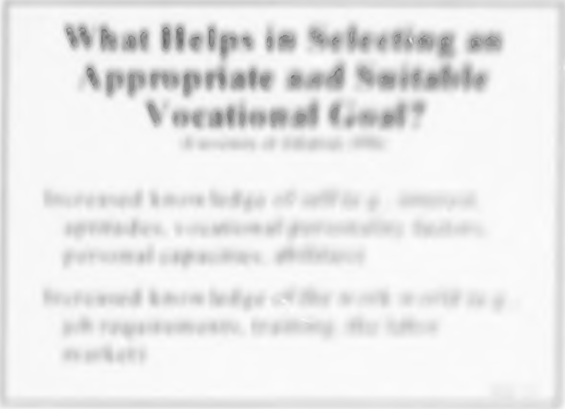
It is doubtful that a vocational rehabilitation counselor could successfully place an American Indian with a disability in employment without considerable support from the consumer's family, community, and employer. This may be particularly true if the vocational rehabilitation counselor is working on a reservation or in a rural, remote area (Sanderson & Marshall, 1997).

Assessment Needs

The vocational rehabilitation professional must be cautious in not using his/her own bias in the vocational decision of a consumer who is planning on residing in his/her rural community. A review of the local labor market and transferable skills should be completed. A vocational plan incorporating these areas in addition to the consumer's functional limitations may result in suitable forms of employment such as self-employment, unpaid family worker, homemaker, or subsistence employment.

Educational Needs

There is evidence that a number of adults with psychiatric disabilities need remedial work in reading and mathematics, along with ongoing supports for attempting mainstream college or vocational/technical training. In a study of incoming clients for two years at an urban psychosocial program, reading levels were found to be at the ninth grade and math levels were at the eighth grade equivalent, despite the fact that 90 percent of these rehabilitation recipients had graduated from high school and their average number of years of education was above grade twelve (Cook, Wessell, & Dincin, 1987, in Cook & Jonikas, 1997). Some variables related to the selection of an appropriate and suitable vocational goal include increased knowledge of self and the world of work (Slide 10) with results that are likely to have long lasting effects on employment and career attainments (Slide 11).

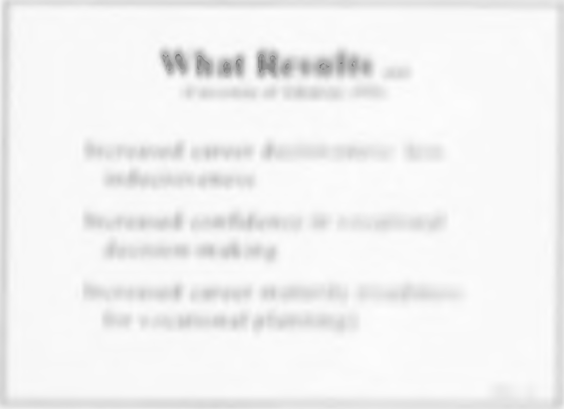


What Helps in Selecting an Appropriate and Suitable Vocational Goal?

[illegible]

Increased knowledge of self (e.g., interest, aptitudes, vocational personality factors, personal capacities, abilities)

Increased knowledge of the work world (e.g., job requirements, training, the labor market)



What Results ...

[illegible]

Increased career decisiveness (or less indecisiveness)

Increased confidence in vocational decision making

Increased career maturity (readiness for vocational planning)

Ethnic Minorities and Rural Persons

Rehabilitation services to unserved or underserved populations have historically been challenging for service providers as there has been limited knowledge regarding appropriate service provisions. Generally, unserved or underserved populations have been ethnic minorities or persons with disabilities living in remote rural areas.

In multivariate models to predict hourly salary and job level (Cook & Roessler, 1987) Caucasians earned significantly more and achieved higher level jobs than minorities (predominantly African Americans) despite controlling for characteristics such as work history, illness history, and demographic features (cited in Cook & Jonikas, 1997). It is perhaps not surprising, therefore, that higher life satisfaction was found among unemployed than employed minority mental health consumers in one study (Fabian, 1989), while the opposite was true among Caucasian consumers (cited in Cook & Jonikas, 1997).

American Indians and Alaska Natives

One of four (26.9%) American Indian/Eskimo/Aleut persons in the labor force has a disability (Schacht, 1996, cited in Sanderson & Marshall, 1997). The 1990 census reported that there are approximately 2 million American Indians, Eskimos, and Aleuts in the United States and that there are over 500 federally recognized tribes, as well as 36 state-recognized tribes (Sanderson & Marshall, 1997). It is estimated that the American Indian population will be reaching 4.6 million by 2050 (U.S. Department of Commerce, 1990).

American Indians are the only ethnic group where almost half of the population resides in rural areas. Currently, 22 percent of American Indian people reside on reservations and trust lands, while 11 percent reside in non-reservation rural areas (U.S. Department of Commerce, 1990). Of equal importance for vocational rehabilitation counselors and administrators to understand is that over 50 percent of American Indians reside in urban areas rather than on reservations, in Alaskan Native villages, trust lands, missions, or rancherias (Sanderson & Marshall, 1997). Planning of rehabilitation needs must address the specific geographic conditions of American Indians in rural and in urban settings.

The following recommendations have been identified and suggested for changing service delivery to meet American Indian rehabilitation needs (Marshall, Johnson, & Lonetree, 1997) (Slide 12):

Service Delivery Recommendations for American Indians

[illegible]

In-home outreach

Case management services

Services to the aging workforce with multiple disabilities

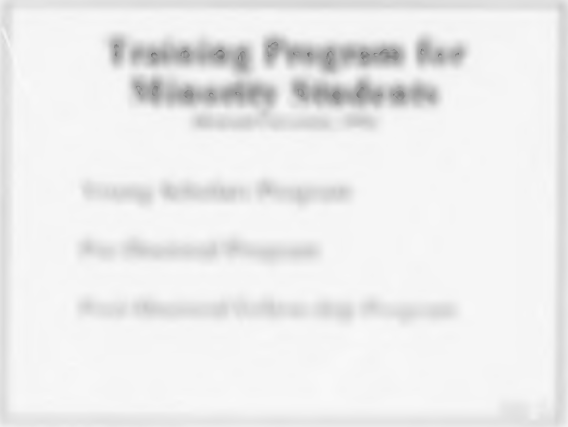
Increased employment opportunities

- In-home outreaches should be conducted to identify individual needs by those agencies sincerely working to serve American Indians with disabilities. Outreaches can be accomplished through use of Indian case finders and should be conducted under the auspices of a single agency such as an Indian health or social services agency.
- Case management services should be available to ensure that basic needs are met. Interviewees consistently refer to problems with transportation accessing basic health care (e.g., dental services) and basic assistive devices (e.g., glasses).
- Vocational rehabilitation services that focus on the special needs of an aging workforce with multiple disabilities should be made available within the Indian community.
- Increased employment opportunities must be made available. Of the 78 percent of those working in a research study only 23 percent reported being satisfied with their current positions. Increased levels of employment must be available to those who would want them.

Creating Ethnic Minority Leaders in Rehabilitation

The Howard University Rehabilitation Research and Training Center identified the need to provide financial assistance and training for professional preparation of ethnic minority students and professionals at the undergraduate, graduate, and post-graduate levels by providing them the opportunity to enhance their leadership, research, and training skills (Walker & Buckley, 1997). Many minority students who attend higher education are usually the first from their families to attend college. Barriers to their success include language limitations, psychosocial factors, and/or peer pressure, and limited access to resources (Walker & Buckley, 1997). Additionally, there is a lack of minority professional role models that the students could emulate to gain social growth and coping mechanisms while attending higher education (Walker & Buckley, 1997).

The Center identified three components in the Howard training program (Slide 13):



Training Program for Minority Students

[illegible]

Young Scholars Program

Pre-Doctoral Program

Post-Doctoral Fellowship Program

- The Young Scholars Program component assists undergraduate students with disabilities from low income groups and diverse cultural communities. Nine undergraduate students have participated in this program.
- The Pre-doctoral Program component is directed at graduate students who have a bachelor's degree in rehabilitation or a related area. Over 30 students successfully completed this program.
- The Post-doctoral Fellowship component works with young professionals from culturally diverse backgrounds. Twelve trainees have been the recipients of this challenging award (Walker & Buckley, 1997).

Some of the benefits that the trainees received while participating in the program include:

- Role models, tutors, and mentors are available to students with disabilities and other underserved populations from low socioeconomic backgrounds.
- Workshops are developed to address critical issues such as self-esteem, conflict resolution, sexuality, peer pressure, employment, grooming, among a number of at-risk groups such as the Washington, D.C., Potomac Job Corps, the D.C. Church Association of Community Services, and various middle and high schools throughout the Washington, D.C., metropolitan area.
- Planning and coordinating skills are developed through conferences and satellite teleconferences.
- Cultural diversity training is provided to state rehabilitation agencies and personnel.

Training models like this can help meet the increasing need for ethnic minority professionals in rehabilitation as mentors, service providers, educators, and researchers. Rehabilitation counseling programs should implement similar training models.

Needs assessment studies conducted by rehabilitation research and training centers can assist service providers in better understanding consumer needs and can lead to improved service delivery to people from all walks of life such as persons who are at poverty level, unemployed, recipients of social security and public assistance, and ethnic minorities.

It is necessary to listen to and act upon reports of unemployment rates for individuals with disabilities at 67 percent and research findings from research and training centers that define the needs of individuals with disabilities, the unserved, and underserved populations such as the American Indians, the African American, the Asian Americans, and the Hispanic Americans. Once identified, these needs can then be used to develop appropriate strategies and service delivery models so that suitable vocational goals can be achieved and career development can be enhanced. In addition to improving services, training to ethnic minority students in rehabilitation and providing support can further the goal of enhancing services to populations that require culturally relevant services in urban, rural, and remote areas.

References

Arnold, N. L., Bernier, B., & Seekins, T. (1997). See the chapter *Strategies for Increasing Rural Employment* in this volume.

Arnold, N. L., Seekins, T., & Ravesloot, C. (1995). Self-employment as a vocational rehabilitation employment outcome in rural and urban areas. *Rehabilitation Counseling Bulletin, 39*(2), 94-105.

Arns, P., & Linney, J. (1993). Work, self, and life satisfaction for persons with severe and persistent mental disorders. *Psychosocial Rehabilitation Journal, 17*, 63-79.

Bowe, F. (1991). *Black adults with disabilities: A portrait.* Washington, DC: The President's Committee on Employment of People with Disabilities.

Cook, J. A., & Jonikas, J. A. (1997). See the chapter *Community Integration Through Vocational Rehabilitation for Persons With Psychiatric Disabilities* in this volume.

Cook, J. A., & Roussel, A. E. (1987, August). *Who works and what works: Effects of race, class, age, and gender on employment among the psychiatrically disabled.* Paper presented at the American Sociological Association Annual Meetings, Chicago, Illinois.

Fabian, E. S. (1989). Work and the quality of life. *Psychosocial Rehabilitation Journal, 12*, 39-49.

Fesko, S. L., & Temelini, D. (1997). See the chapter *Shared Responsibility: Job Search Practices From Consumer and Staff Perspectives* in this volume.

Marshall, C. A., Johnson, S. R., & Lonetree, G. L. (1993). Acknowledging our diversity: Vocational rehabilitation and the American Indians. *Journal of Vocational Rehabilitation, 3*(1), 12-19.

Menz, F. E. (1997). See the chapter *Community-Based Rehabilitation Programs: Achieving Sustainable Vocational and Employment Programs* in this volume.

Sanderson, P., & Marshall, C. A. (1997). See the chapter *America Indians with disabilities: Maximizing employment opportunities* in this volume.

Thomas, D. F., & Menz, F. E. (1993). Head Injury Re-entry project (Project HIRe): Final report. Menomonie: University of Wisconsin-

Stout, Research and Training Center.

Thornhill, H. L., & HoSang, D. A. (1988). Poverty, race and disability. In S. Walker, J. E. Fowler, R. W. Nichols, & K. Turner (Eds.), *Building bridges to independence: Employment successes, problems, and needs of Black Americans with disabilities* (pp. 148-156). Washington, DC: The President's Committee on Employment of People with Disabilities.

U.S. Department of Commerce, Bureau of the Census. (1990). *Census of Population, Social and Economic Characteristics.* CP-2-1. Economics and Statistics Administration. Washington, DC: Government Printing Office.

Walker, S., Saravanabhaven, R. C., Williams, V., Brown, O., & West, T. (1996). *An examination of the impact of federally supported community services and educational systems on underserved people with disabilities from diverse cultural populations.* Washington, DC: Howard University Research and Training Center for Access to Rehabilitation and Economic Opportunity.

Walker, S., & Rackley, R. (1997). See the chapter *Leadership for America: The Howard University Scholar Training Model* in this volume.

Author's Note: For further information contact Priscilla Sanderson, American Indian Rehabilitation Research and Training Center, Institute for Human Development, University Affiliated Program, Northern Arizona University, P.O. Box 5630, Flagstaff, AZ 86011. Phone: 520-523-5581, Fax: 520-523-9127, TDD: 520-523-1695, E-mail

Places: Being in Context With People and Strategies

Fredrick E. Menz
University of Wisconsin-Stout
Rehabilitation Research and Training Center on
Improving Community-Based Rehabilitation Programs

I am going to talk a little bit about "place." Others refer to this as "environment" or "context." What I am especially going to address is what the Centers' research is saying about this thing called "place" or "context," and how to gauge these "modifiers" or "mediators" as rehabilitation solutions are suggested to you and as we attempt to understand why some approaches do and do not work and why sometimes our "models" produce surprising results, seemingly despite what we do. As a wise person once said about "place"

> *"It really does make a difference where you live."*

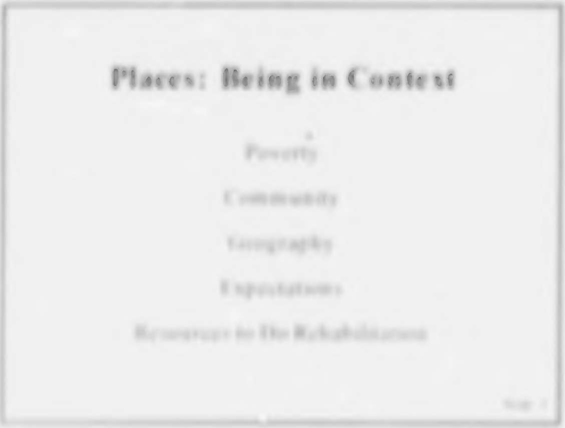
To me, "place" has more meaning than context or environment. "Place" gives me a sense of boundaries, a special location, a feeling of where I am, and where events are being played out. It gives me a point from which to compose my appraisal of where I fit, how the options I may discover are grounded, and how or where I sit, stand, walk, leap, and come from and go to with other ideas and options. "Place" centers me. It is reality and offers a practical substance in which to swirl possibilities as they come about from research and experience. It gives me a sense of what I may control, shape, apply, and how our science may influence.

"Place" also gives me access to the visceral and allows me to introspect with the numerical, objective, and qualitative data from the body of our rehabilitation research. It also permits you and me opportunities to draw upon our senses and experiences with people and other cultures and to explore where our needs, interests, and values come into what we understand and how those are entwined in our acceptance and advocacy for models or programs -- even when you and I may be drawing our conclusions from the same body of research and empiricism.

For me, "place" permits me to feel and to sense how our society and its opportunities (for instance, for employment) are unfolding, are affecting implementation of desirable or effective approaches, and how such events and options may be in conflict with your ideas and mine about what should be happening in rehabilitation -- especially as proposals for new opportunities may affect people, our priorities, and our strategies.

"Place" helps me to know that I'm not in Philadelphia or Peoria when I look to an exciting model for the people and communities I work with. Place helps me keep from confusing W.C. Fields with Tim Fields, and Waylon Jennings from Paul Wehman. In other words, place, provides us a sense of "reality" or "legitimacy" for interpreting and integrating the collective body of research on rehabilitation and employment.

Let me take you to visit some of the places (Slide 1) I am finding important to our work to promote models that work for the people for whom rehabilitation is intended. By the time I am done, I think you may find that you have identified some places you operationally deal with as you go about looking at alternatives or designing services that may achieve goals of relevance to you and the people you intend to effectively serve.



Places: Being in Context

Poverty

Community

Geography

Expectations

Resources to Do Rehabilitation

Slide 1

Let me share with you a series of slides that give these places substance and note how these particular places come to influence the potential for effectiveness of the models we propose, implement, and defend in our pursuits to improve employment options for people with disabilities. The five places are poverty, community, geography, expectations, and resources.

The Place Called Poverty

Poverty is palpable, visible, integral to the form and quality of people's lives. It indexes potential. It shapes and dehumanizes. It is perhaps the clearest condition associated with disability and the unemployment of people with disabilities. It is often both cause and effect of disabilities and the physical, social, medical, legal, and other conditions so closely associated with it.

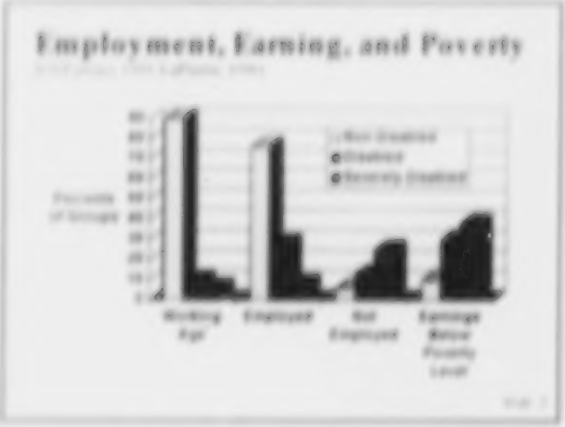
The statistics are very clear that the larger proportions of people with disabilities, people with severe disabilities, and people with disabilities from minority backgrounds exist on incomes (earnings and subsidies combined) that are consistently below poverty levels. Any ethnographic study we examine shows that poverty and disability reside in the same neighborhood, barrio, on the same blocks in our communities, and will be found beneath our communities, whether those communities be inner city, suburban, or rural America.

Poverty and being poor are not the same condition, of course. Poverty is not simply an economic status. Poverty is likened to a "nation within" -- a third-world nation (if you will permit this allegory), which spans within the boundaries of the United States, is established in our urban and rural communities, and is populated by individuals linked by "lacks ofs" that, in turn, create allegiances, define citizenship, establish lifestyles, determine roles, and result in the economic and health conditions common throughout. It is governed by need and scarcity of opportunity and inertia. In a sense, poverty is a culture, with mores, language, and customs, recognizable regardless of geography and transferable from community to community and generation to generation. As a nation-within, its citizens are bound to it by an absence of a sustaining economic base or exportable products.

Rehabilitation is not proposed as a cure for poverty, but it can and does move people with disabilities out of many of the social, health, and economic conditions that sustain a person in poverty. Unlike other solutions to social problems, rehabilitation does not view the individual in isolation from his/her broader needs or offer up a simple, singular criteria with which to ascribe a new social status or to catalogue its successes. Rehabilitation is much more about "teaching a person to fish" than it is about teaching a person how to select and prepare store-bought fish.

Employment, Disability, and Poverty

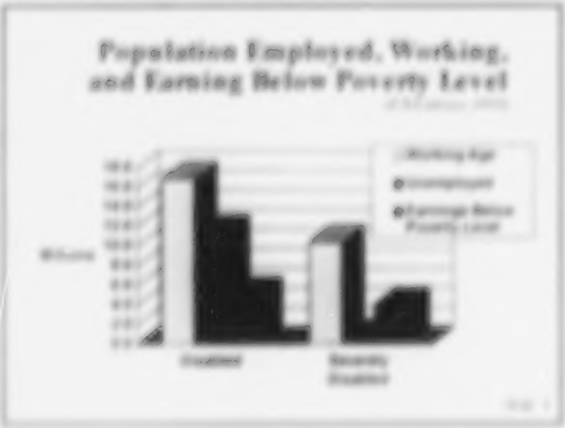
The data graphed on these next two slides show that significant proportions of people with disabilities are not employed and that for those employed, they live below the poverty level. People with disabilities and people with severe disabilities have the lowest rates of employment and lowest levels of earnings and earnings gains, in both relative and absolute terms (Slide 2).



Employment, Earning, and Poverty

Among those of working age, the potential that people with severe disabilities will live in poverty, unless there are assurances through programs that are effective in addressing their conditions and needs to be within instead of apart from society, is most significant (Slide 3).

The negative, economic impacts are that significantly lower percentages of persons with disabilities are in the workforce and significantly high percentages of people with disabilities of working age who are working have earnings that place them below these poverty levels. As severity of disability increases, the disparity in earnings between groups and their likely participation in poverty increases dramatically.



Poverty and Minority

Data from Howard University and from Northern Arizona centers point out the negative consequences when poverty, disability, and minority status combine (Slide 4). Unemployment rates and proportions of families with earnings below poverty levels among minorities are exasperating high. Families living in poverty are also at greater health risks throughout their life span, beginning in their prenatal stage. People from minorities with disabilities are adversely affected in all areas of their health, safety, economic, and employment possibilities. Levels of risks start early and remain high across age groups.

Poverty Among Minorities

[illegible]

Rates:

African Americans	[illegible]
Hispanics	[illegible]
White Americans	[illegible]

Families at greater risk throughout life span, beginning at the pre-natal

[illegible]

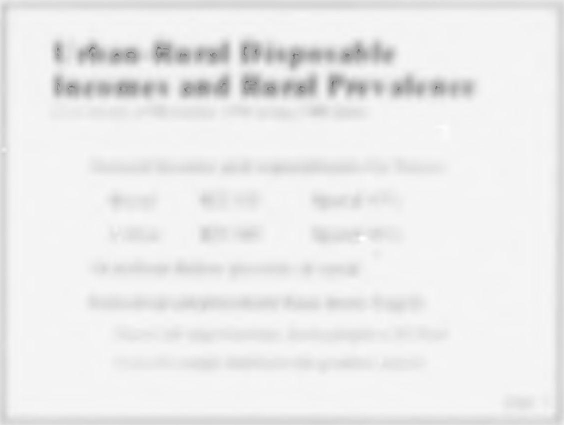
Risk and rates stay same across all age groups

Slide 4

BEST COPY AVAILABLE

Rural Poverty

Data from the Rural RTC in Montana suggest the extent to which poverty exists in "pristine rural America" and how poverty can be "sustained" because of the fragile economic nature of today's rural communities and the equally fragile economic balance for the rural family (Slide 1). The high proportion of income that the rural families requires to meet basic housing and living needs suggests how small a margin they have, in general, to be able to absorb the impact of a disability. Economic opportunities (limitations in choice because there are so few job alternatives, limitations in options because there is such competitiveness for scarce jobs) and their ability to remain solvent within their communities and absorb the added cost that disability may involve (e.g., transportation, income lost due to illness) present a picture of the truly fragile nature of rural poverty.



Urban-Rural Disposable Incomes and Rural Prevalence

[illegible]

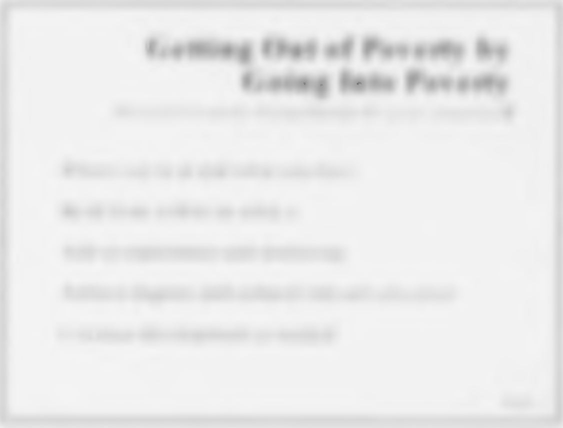
Slide 1

Rehabilitation That Affects Poverty Potential

Vocational rehabilitation goes beyond simple restoration of function, minimization of impairment, and/or getting a person a job. Rehabilitation is about providing people with tools to control their environment, to bend it to their needs, and to diminish the potential for disability due to existing impairments that can put people at economic and social disadvantage. A message that seems almost too obvious to me is that education and rehabilitation are among our most useful tools to counter the consequences of disability and poverty when they appropriately consider individuals and their "contexts."

Appropriate education or rehabilitation engages people from where they are in relation to the mainstream community. It would seem that if we expect people to get out of poverty, we must first begin with poverty, design experiences around where individuals are academically and socially, not as deficits, but as significant attributes upon which to build skills, and develop a working repertoire. Neither getting a higher education degree nor being allowed to pass through a degree program provides the bi-cultural experiences or the portfolio of resources an individual needs to profit from one's own culture, interrelate one's academic experiences and personal achievements, or to learn to apply ones cultural heritage in a dominant environment where such a background may be in distinctive contrast.

An example of an approach to developing culturally relevant leadership from among individuals with potential may be The Young Scholars program at the Howard University Center, as I interpret what Dr. Walker and associates are accomplishing (Slide 6). Howard is attempting to create future leaders from minority and poverty roots by (a) taking them from where they are; (b) developing fundamental skills and experiences that can be drawn upon; (c) aiding them with mentors who are successful members of their culture; (d) preparing them to work, achieve, and incorporate experiences in dominant institutions; and (e) providing ongoing guidance and contact with which to shape their bi-cultural roles and leadership. As I understand the Howard program, it recognizes and confronts the consequences of poverty, beginning with where the individual is, and then builds upon these attributes as conditions significant to how education might promote real transcultural value.



Getting Out of Poverty by Going Into Poverty

There are strong indicators as to what we need to do in relation to these "influences" from this place. Vocational rehabilitation services, when directed toward vocational ends, do change the status of significant numbers of people as shown by this slide (Slide 7) from 1992 data. Rehabilitation, therefore, is a part of the answer. While the total annual earnings of a very high percent of competitively placed rehabilitants leave them below poverty indexes, this is a condition on which renewed interest and efforts in our modeling and strategies can have added influence. What we do not know, today, is the extent to which rehabilitated individuals move out of poverty after reasonable participation in the labor force.

Place Called Community

"Community" is another one of the places that we find important as we look at research and how and under what conditions our service delivery models are more or less effective (Slide 8). Community deals with the viability of our employment models. Community includes the tangible (e.g., job availability, social class discrimination, economic outlook) and intangible idiosyncrasies of economic and social conditions that circumscribe any rehabilitation application (e.g., social attitudes, prevailing optimism, legal enforcement).

Community-as-place determines both which contemporary employment models are adapted and how they evolve over time to meet specific expectations in the community's public and employer sectors for people with disabilities and other marginalized populations. Community involvement, employer involvement, utilization of work-related supports, availability of incentives to hire people with disabilities, and the stability of economic conditions of the community continue to index how our contemporary employment strategies are strengthened or reduced in their effectiveness.

Environmental Factors Affecting Program Evolution Into Community

Growth of supported employment as a program
Emergence of community-based [illegible]
Significance of natural [illegible] supports
Policy [illegible] disability [illegible]
[illegible]
[illegible]
[illegible]
[illegible]

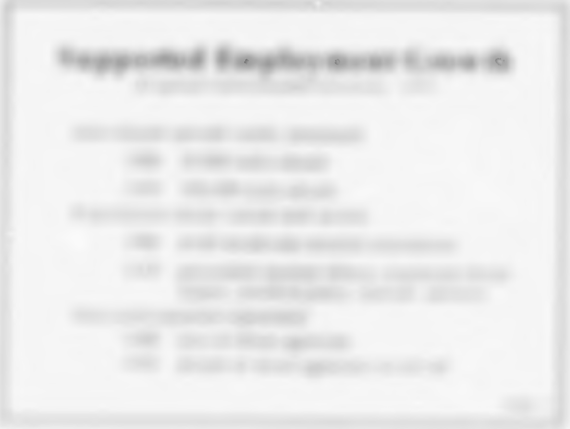
[illegible]

As we examine the evolution of our programs, there are five important "community factors" that are modifier variables given greater attention in Context: research and development of employment models, growth and development of supportive employment, role of natural and work-place supports, emergence of community-based rehabilitation, how disability need costs can be distributed, and employer involvement in designing and realizing effective employment models.

Growth and Changes in Supported Employment

The next three slides reflect the importance and changes taking place in supported employment. Centers at Virginia Commonwealth, Boston University, Children's Hospital, and Chicago provide significant documentation of this rehabilitation program model.

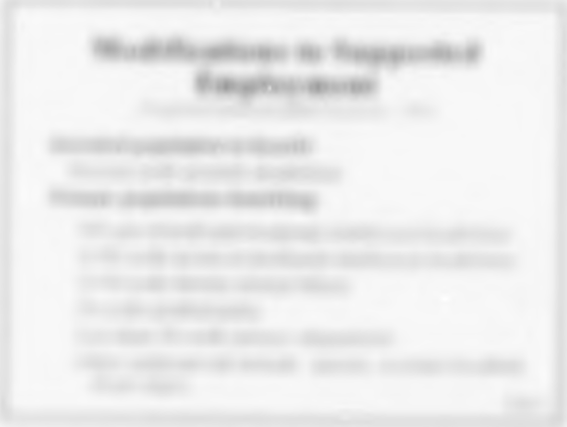
There has been phenomenal growth in application of this approach. As data on this slide (Slide 9) shows, in 1986, 10,000 persons with disabilities were in supported employment. By 1993, that number had exceeded 100,000.



Supported Employment Growth

[illegible]

A combination of federal support, leadership, values, demonstrations of variants of the model among different populations and settings, and strong commitment of advocates, practitioners, researchers have all been integral to this employment model's growth. It has rapidly spread to most states, become embedded in federal law, and is applied not only through vocational rehabilitation but by various other state and federal programs for people with disabilities (e.g., developmental disabilities, mental health). As we note on the slide (Slide 10), though the model was designed primarily for people with severe disabilities, its growth and its successes are documented with people who have mild to moderate disabilities with a wide range of disabilities.

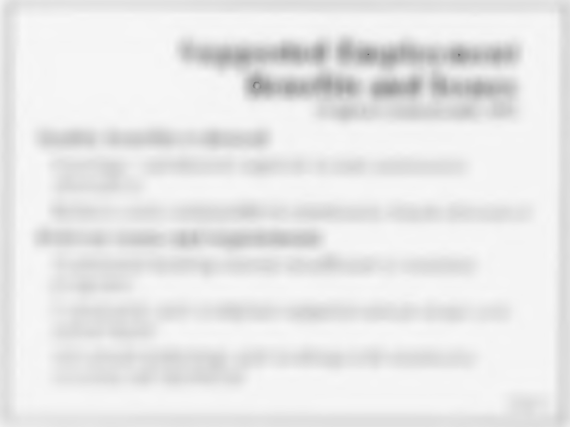


Modifications to Supported Employment

[illegible]

The approach has increasingly been applied with various disability populations often considered unlikely candidates for competitive employment.

The evidence and data from studies of supported employment achievements reflect both upon the qualitative and quantitative benefits for recipients and continuing delivery issues that are particularly important to being able to sustain people in jobs (Slide 11). Delivery issues continue to shape, limit, or influence the likelihood of success for people with disabilities. These issues are (a) insufficient funding through traditional funding sources, (b) costs for workplace supports, and (c) how to use technology and other alternatives to increase likelihood of access to preferred jobs and to improve potential for success in supported employment (i.e., in earning, stability, advancement, careers).



Supported Employment
Benefits and Issues
[illegible]

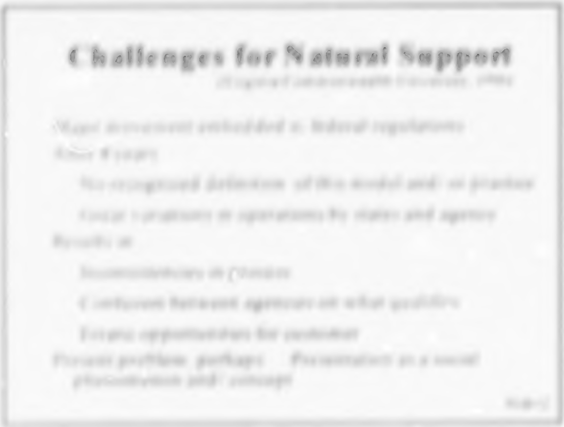
Quality benefits evidenced
- [illegible]
- [illegible]

Delivery issues and expectations
- [illegible]
- [illegible]
- [illegible]

Challenges for Natural Supports

"Natural supports" has been widely proposed as a resource solution, and in emergency [illegible] as how the movement from protected environments to community settings has been [illegible] federal legislation and advocacy of consumers and rehabilitation professionals (Slide 12). As a program concept, natural supports has been around for probably eight years, yet we still do not have an agreed upon operational definition for "natural support." Subsequently, there is great variation in terms of how it is actually being applied.

Paul Wehman and his colleagues from the Virginia RTC note that the has lead to inconsistencies, confusion, and erratic processes all bearing the name and aura of "natural supports." If "workplace resources" are to become significant alternatives to professional-paraprofessional interventions at the work site (e.g., job coach, employment specialist), the issues reflected on this slide are of much more than an academic interest.



Challenges for Natural Support

(Virginia Commonwealth University, 1996)

Major movement embedded in federal regulations

After 8 years

- No recognized definition of this model and/or practice
- Local variations in operations by states and agency

Results in

- Inconsistencies in [illegible]
- Confusion between agencies on what qualifies
- Erratic opportunities for customer

Present problem: perhaps ... Presentation as a social phenomenon and/ concept

[illegible]

Expansion of Community-Based Rehabilitation Programming

The Research and Training Center at the University of Wisconsin-Stout is evaluating alternate "community-based" models for employment of persons with severe disabilities (especially persons with traumatic brain injury and psychiatric disabilities) among a variety of community types to determine how successful models are implemented and sustained. Their research again reflects how rehabilitation tends to be a profession in which models become adapted, based upon tradition (or resistance) and community relevance (what people need, are able to access, or are willing to do).

Supported employment has been a very important impetus to vocational rehabilitation facilities, comprehensive rehabilitation providers, independent living centers, and day activity centers to push many more traditional services into community-based settings. Where vestiges of programs continue within a "brick-and-mortar" setting, the preferred qualities sought by supported employment advocates have been interpreted and interpolated among the community providers. Where once evaluation or "work adjustment" might be conducted under "simulated" conditions, job-trials and community settings are being used to identify real needs (instead of potential) to access employment. Where programming to prepare individuals for employment at some later point in time (e.g., symptoms are reduced, productivity is competitive, behavior is normal) was once the norm, adaptation and skills building are taking place in normal work settings. Where protected, sheltered, or segregated employment was considered appropriate for certain populations, provided in institutional settings, and covered by wage-certificates, alternate employment options are now being provided.

Many of these options reflect the significant change in perceptions, expectations, and expanded needs for numbers of employees and also a respectful acceptance of the evolution of our rehabilitation program's processes (e.g., supported employment), progress (e.g., deinstitutionalization), and basic values (e.g., belief about the worth of people with disabilities). Community-based options go by a variety of names including community-based employment, supported employment, reverse employment, community integrated industries, supportive employment, affirmative industries, enclaves, group employment, subsidized employment, consumer-operated businesses, subcontractors, public service jobs, Fountain House, and many others. Too, many of these options have adopted characteristics of a supported employment model (e.g., place and learn, use of job coaches) but not fully the formal criteria defined in rehabilitation regulations (e.g., hours worked, wage rate, proportions of non-disabled to disabled workers).

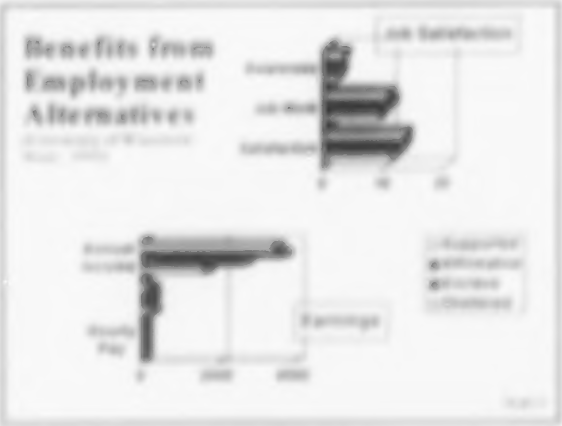
The evolution going on among vocational rehabilitation facilities, community-based vocational programs, and day activity centers is being driven by changes in economic opportunity (e.g., high numbers of entry-level jobs, industrial outsourcing) and, as often as not, at the local and state levels. Both community-based and facility-based options may be operated by the same organization and may be provided to both disability and other populations (e.g., immigrants, welfare recipients).

The settings, type of work, wages and benefits paid, disabled and non-disabled mix are more and more often becoming similar to those found in other industries and businesses in the respective community. Integration (as a goal or a practice), use of supports (e.g., subsidized, natural), employee and payroll status, competitiveness of wages and benefits, and physical location in the mainstream of the community are increasingly characteristic of community-based programs.

How "community-based" programs become seems to be very much a function of the prevailing emphasis given to supported employment or transformation by the state's vocational rehabilitation (e.g., agency commitment) and other related agency programs (e.g., mental health, developmental disabilities), the dependence of the provider organization on public fees for services, and the public and economic climate of the community, rather than driven by a demand written in federal law.

Community Alternatives, Individual Needs, and Differential Benefits

As we look to different employment models, there is wide variability in benefits and job satisfaction depending on the community, the community-based model, the economic climate of the community, and the types of supports (on-job, off-job) available for the individual (Slide 13). Data presented in this series of slides suggest the superiority of community-based models to facility-based models in job satisfaction and earnings (this was a highly controlled study of severely disabled individuals) though earnings were inadequate for self-support or to maintain independent housing.



As an important reason for development of community-based options is to design individualized strategies that can address quite specific consequences of disabilities experienced by an individual (e.g., changes in executive functioning experienced by some persons with traumatic injuries). Individual differences in rehabilitation needs arise from the disability itself, the community the individuals are in (e.g., urban, location of specialized services), and the employment sector (e.g., desired, available, employment level). This next slide provides very recent data from a follow-up of persons with severe traumatic brain injuries from 20 nationally distributed sites (Slide 14). Expectations for the majority of these individuals were that they would be placed in entry-level jobs, with low wages, and for very few hours of work per week. Instead, the largest proportion were earning above minimum wage, more likely employed full- or nearly full-time, and when wages were compared to current poverty level indexes, a very high proportion of them were put above poverty.

The next slide (Slide 15) suggests how varied were the jobs accessed by individuals with severe traumatic brain injuries and how varied were the supports necessary to sustain their employment.

A survey of 191 consumers and 398 counselors conducted by the Center at Boston Children's Hospital shows that job-seeking practices are effective, though differentially for persons with different disabilities. Persons with mental illness or mental retardation were able to find jobs in half the time it took persons with physical disabilities, but their jobs were for fewer hours per week and at lower hourly wages (Slide 16). Networking approaches to job seeking tended to yield higher earnings, including higher hourly wages and more working hours.

Support Needs

Earnings for Different Disability Groups

Recommendations for providers assisting persons with disabilities to obtain jobs were to (a) emphasize networking for both the consumer and professional, (b) train consumers on how to make use of their personal networks, (c) work with families and associates to build upon the individuals' relationships in the community, (d) point out that professional networks develop as others understand the work of the professional with people is toward employment, (e) become involved in local professional and business organizations to develop contacts and an understanding of whom you represent, (f) develop ongoing relationships with employers that transcend the immediate placement issues, and (g) monitor and nurture relationships in the business community upon which future opportunities may be found.

Research also shows that the prospects for people with disabilities placed from community-based programs will not always be uniformly positive or that the people will become economically self-sufficient. Placements of this cross-section of people with disabilities were into various jobs, but many of the placements were into entry-level jobs and in low-skills jobs in basic service industries (Slide 17). As we look across disability types subsequent earnings will in fact be different based upon many factors: who the consumer is, what the disability is, and the consumer's ability to access, pursue, and actually find a job. Average earnings among this sample were typically too low to permit them to live independently.

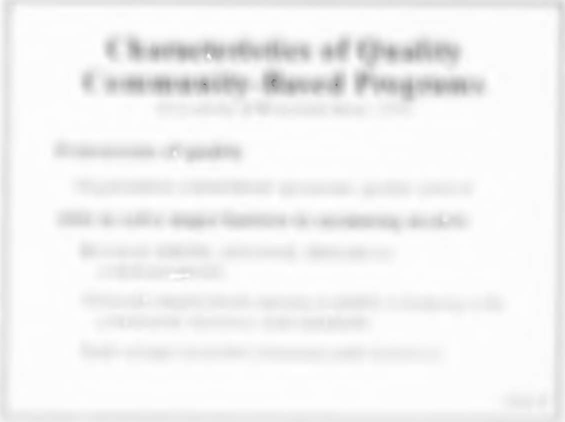
Characteristics of Quality Programs

Demonstration research by my colleagues at Wisconsin on a couple of dozen supported and community-based models identified several important features of models. These characteristics (briefly outlined on Slide 18) are tied to the organization operating the program, how the program is organized and delivered, and how the program maintains its relevancy or currency within its community for its customers.

Organizationally, there is commitment across the organization to quality in consumer terms, in its public and internal communications, in its use of resources, in incorporation of practices that work, and in real use of

BEST COPY AVAILABLE

quality controls to guide change. Its programs are definable and recognizable internally and externally, focused on accepted outcomes for consumers; anticipates problems (e.g., resources will change, personnel needs will change); and establishes alternatives within the community (e.g., job sites, funding, networks). Quality programs look to alternatives (e.g., various employment strategies) that are consistent with community resources and standards, and they early on devise unique economic supports and incentives to support consumers and the program.



Characteristics of Quality Community-Based Programs

[illegible]

Dimensions of quality

Organizational commitment; consensus; quality control

Able to solve major barriers to sustaining models

Resources (funding, personnel, alternatives to collaborative models)

Alternate employment options available; consistent with community resources and standards

Early unique incentive structures and resources

[illegible]

Making Community-Based Options Sustainable

There are problems we must confront as we go about creating and, most importantly, expecting significant, integrative employment options to be viable within our communities (Slide 15). Virginia Commonwealth, Chicago, Philadelphia, Wisconsin, and Arkansas Centers have suggested that we must more fully consider the infrastructure available to sustain supportive and other community-based programs – especially for those programs geared toward employment or placement into jobs that are supposed to be individually sustainable.

As they clearly find, there is under-representation of certain disabilities; there is wider use of supportive types of employment options with moderately severe disability populations than was expected; and there are varied and undefined applications of "natural supports."

Considerations Emerging as Programs Move Into Community

[illegible]

For consumers, they feel pressures and uncertainty with respect to availability of resources and access to supports to meet long-term needs or to respond to acute needs of certain disability populations (e.g., mental illness, traumatic brain injury) or to assure a balance between what the individuals (and their families) and other society (our communities, state governments, the federal government) must make available to keep individuals within, rather than outside, their communities (i.e., outside institutions or segregated intermediate care facilities).

Part of the solution to these issues will, of course, come from people like yourselves, attending this conference. Some parts will come about through the natural supports within our communities with interests and efforts to create better conditions.

Other parts of the solution must come through disability policy that is carefully conceived with interests of individuals, rehabilitation needs, and economic realities well [illegible]. A well-conceived policy will embrace the principles of social security, of vocational rehabilitation, and of [illegible] medical thresholds, and at the same time balance costs to support disability needs among employment, public, and individual sources. As we looked into trying to solve some of the natural supports issues, we are going to get into the areas of dealing with economic burden – the social and individual responsibility, costs, and [illegible] of desired rehabilitation outcomes (economic parity, community integration).

Examples Where Costs and Benefits May Be Distributed

[illegible]

Federal Economic Benefits

[illegible]

Federal Costs of Support

[illegible]

Individual Economic Benefits

[illegible]

Individual Supports

[illegible]

Employer Participation

With exceptions, we have not been successful in getting significant involvement of the employment sector in our employment model development. Obviously, this cannot continue. There are significant pressures that can be applied. Since implementation of the Americans with Disabilities Act, there is greater awareness of the reasonableness of costs to industry for disability accommodations, and there are a variety of incentives that make hiring and retaining persons with disabilities attractive to employers today.

Employer Awareness and the Americans with Disabilities Act

Employer understanding of the Americans with Disabilities Act, as the next slide reports, is not as good as would be hoped, if the legislation is to affect numbers of employment opportunities within primary industries of all sizes (Slide 11). While employer understanding of the Act may not be as good as we might prefer, today's employers are willing and ready to make accommodations for people with disabilities. Employers are ready to make (or have made) fairly delicate changes to accommodate disabilities.

As might be expected, such changes are changes that can also benefit their larger workforces, including persons with disabilities. Costs for implementation and applications of ADA provisions are being found to be quite modest. Studies of ADA accommodations show that the typical cost for accommodating an individual is exceptionally low and well below [illegible]

[illegible]

Employer Understanding of the Americans With Disabilities Act

[illegible]

[illegible]

[illegible]

Incentives for Employing Persons With Disabilities

[illegible]

beneficial to consumers and employers [illegible] has brought about a number of [illegible] employer participation with the [illegible] challenges for employer involvement under the Americans with Disabilities [illegible] incentives that may induce greater [illegible] able accommodation" provisions [illegible]

As this slide (Slide 13) indicates, [illegible] hiring people with disabilities is [illegible] between the individual and job [illegible] Incentives range from tax credits for [illegible] encourage employers to carry out [illegible] the government to improve the [illegible] greater numbers of people can be [illegible] economic incentives that [illegible] Further, there are incentives to work [illegible] compensate the workforce and that [illegible] and to help employers consult and [illegible] people with disabilities, and there are [illegible] people in the employment arena [illegible] training at low wages and salaries [illegible] credits that can be obtained [illegible] rehabilitation programs. There [illegible] persons with disabilities (e.g., tax [illegible] advantages (e.g., tax advantages [illegible] individuals from the vocational [illegible] to create employment opportunities [illegible] environments or enhancements [illegible] incentives to alter the work [illegible] disabilities, and to overcome specific [illegible] to employ people with [illegible] systems in keeping with community [illegible] transportation (e.g., through the [illegible] persons with disabilities needs for [illegible] costs of transportation.

Incentives for Employing Persons With Disabilities

[illegible]

Employers must be part of the [illegible] employment of persons with disabilities [illegible] to develop to achieve greater [illegible] exceptionally [illegible] Employer participation is [illegible] and success of an employment [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

A lesson too often overlooked that could become especially crucial as health care reform and workforce consolidation takes place is that services must be accessible not only physically but geographically and within personal reach of people who can likely profit best from them. As some states have gone about consolidation, they have centralized resources and located them in "nice" areas with plenty of free parking, green space, and in efficient, chromed facilities, where premiums for liability and security insurance are lowest. These locations are often not where the larger numbers of people live and are often sites that create extensive transportation problems for rural (and urban) people who require these services. Not all access issues will be solved through applications of technology or consolidation planning.

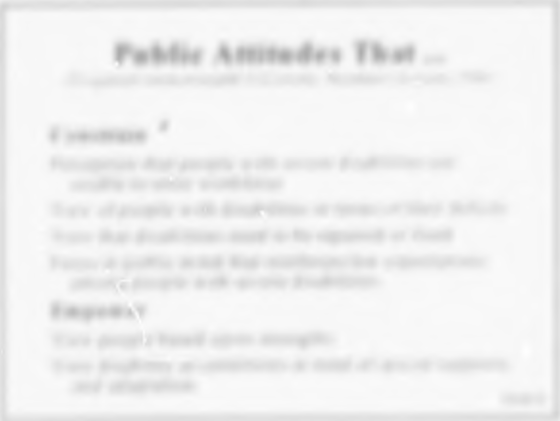
Expectations as Place

Expectations is the fourth place we need to visit. This 'place' includes the public's perceptions, our professional perceptions and expectations, and consumer expectations of people with disabilities and of themselves. Change in expectations about what is possible (especially in the arena of jobs) is one of the wonderful changes in expectations that is occurring both within and outside the community of rehabilitation. Where we were once looking to (or willing to accept) first-jobs as sufficient, we are now looking toward employment outcomes that are career-conscious. The job "fits" that offers greater control over immediate and future earning capabilities, are those that will sustain maximum individual independence.

Public Attitudes and Expectations

Public attitude, again, remains one of those 'expectation places' with which we must contend and continue to shape (Slide 26). Public expectations are reflected in public policy and law (framing what can and will take place in our communities), in the economy, and in the employment and public accommodations that we can assure for people with disabilities. Civil rights legislation and the Americans with Disabilities Act are specific examples where public attitudes were translated into laws that open the doors of access and ramp the hallways of opportunity.

Professionals', consumers', and family expectations set goals (or limits) that are achievable and pursued by people with disabilities. The interaction of these shape public programs (like rehabilitation) and provide the muscle in the work of enforcement of professional standards and publicly endorsed laws (like ADA). We can and are, I think, making inroads, shifting public attitude from seeing [illegible] with disabilities as "people whose disabilities cause problems" to viewing people with disabilities in terms of their "needs for supports."



Public Attitudes That ...

Constrain

Perceptions that people with severe disabilities are unable to enter workforce

View of people with disabilities in terms of their deficits

View that disabilities need to be repaired or fixed

Focus in public sector that reinforces low expectations among people with severe disabilities

Empower

View people based upon strengths

View disabilities as conditions in need of social supports and adaptation

Increased Consumer Expectations

Today we are seeing unprecedented changes in demand for inclusion and greater demand for control over the designs, resources, and outcomes of rehabilitation processes. We are looking at situations now where consumers (people with disabilities like you and me) are all faced with higher expectations for public programs. The far-reaching issue for our social policy and development of employment options is that we need to become much more accountable, satisfying, effective, and efficient. This has created extremely strong competition within the public sector in developing public policy that affects rehabilitation and in resolving what, whose, and where demand for resources and control over rehabilitation are going.

Changes in Professional Expectations

While attitudes in the consumer arena have expanded expectations, there still remain significant problems (Slide 27): fears of actually dealing or getting into rehabilitation, professional reluctance to pursue vocational goals, family member opposition, vocational rehabilitation wariness toward certain disability groups, and perceptions that demonstrated alternatives are not available, though research evidence shows otherwise.

Changing Expectations for Careers Rather Than Jobs

[illegible]

Customer driven approach to business involving concepts of customer service, satisfaction, and quality improvements

Consumer orientation in agency and community programs

Successful, high quality providers are that achieve employment retention and career advancement

Research from Cook, from Sanderson, from Baron, and from colleagues in supported employment report how changes in expectations of key professionals can shift consumer expectation and will affect which outcomes are considered appropriate and "permitted to be sought" by clients (Slide 28). Repeatedly, popular and professional assumptions regarding limited potential for people with psychiatric disabilities (e.g., Cook et al., Anthony et al., Baron et al.) are challenged and discounted. Low expectations for people with severe disabilities are repeatedly being shown to be inappropriate.

Ten years ago, it was assumed that people with severe disabilities would not be accepted in the workplace or in communities and that people with severe mental illness should not be expected to work until symptoms were resolved.

Expectations as barriers, professional attitudes, and other barriers from within our personal orientations still exist. The extent to which expectations shape program attainments is significant. Creative approaches permit us to re-evaluate the truth or falsity of the images we have that limit the potential of people with disabilities we serve. These narrow images are gradually yielding to greater expectations and greater possibilities for people with disabilities.

Professional Attitudes That Continue to Limit Strategies

[illegible]

- Consumer fears and [illegible] expectations
- Professional reluctance to refer individuals to [illegible]
- Professional reluctance to encourage individuals with severe disabilities to pursue vocational goals
- [illegible] approaches to [illegible]
- Vocational rehabilitation is [illegible] individuals with poor mental health, "high cost" disabilities, [illegible]
- Perceptions that there are very few [illegible] vocational alternatives
- Myth and reality of disincentives regarding individual benefits and employment

Slide 28

Place Called Resources

Resources is the last place I'm taking you to visit. Resources include the kinds of public resources that are established at both the federal and local levels to address disability needs -- specific resources that need to be in place so that people with disabilities can become gainfully employed and commensurately productive -- and personnel in both public and private sectors with appropriate skills to work with people with disabilities.

The efficacy and value of our employment models and strategies can be most greatly influenced by changes in public policy and personnel qualifications. First, as policy and public resources change, our models and strategies must be adapted to accommodate those changes, lest they be irrelevant and unrealistic. Second, as public and personnel resources remain or are no longer present, the viability and validity of our adapted strategies must be reappraised for time and populations, and models must be staffed by personnel with necessary skills and competencies.

Public Policy and Resources for Rehabilitation

This slide reports key problem areas encountered by a stratified sample of 100 community-based programs as they successfully implemented and stabilized community-based employment programs in their communities (Slide 29).

Implementation and Stabilization Issues for Community-Based Employment Programs

The two issues that affected successful development, implementation, and continuance of local community-based rehabilitation programs were the clarity of the state's public policy toward community-based employment and how public funding was consistent and targeted with that public policy. Each issue creates problems when intent, regulations, and resources are unclear and inconsistent with the state's expectations for rehabilitation outcomes. If both are clear and coordinated, the climate fostering programming for community integration and economic participation is more likely to succeed. Clarity of intent and commitment of public resources to that intent will continue to be of great importance as consumer and policy advocates encourage the vocational rehabilitation to serve more severely disabled individuals. Clear policy and resource commitment will do much to demonstrate the public program's commitment to supported employment and to independent living and to complete the current discussions over whether the goal(s) of the rehabilitation program is/are rehabilitation, independence, or employment.

Other public policies are affecting how our rehabilitation and employment models are evolving (Table 10). Some of these economic policy issues found in this study from the Chicago Center's work have been touched upon briefly in earlier comments. The issues, while drawn from Cook's work with psychiatric populations, are being identified among virtually every disability (e.g., severe and even severe developmental disabilities) through systematic (brain injury) and program delivery type (e.g., supported employment, independent living, vocational rehabilitation).

Public Policy Changes That Impact on Program Viability

[illegible]

[illegible]

As we look at the political and economic changes taking place in this decade, we must become increasingly aware of how the economic changes and disability and health issues are intertwined. We must become aware of how medicaid, medicare, and social security reforms can influence and play significant roles in what, with whom, and how rehabilitation as we have known it will be shaped. We should anticipate that future employment models and strategies directed toward people with disabilities will be shaped by economic and workforce productivity issues and begin to set standards for employment programs (e.g., design requirements, emphasis on technology solutions, down-sizing, outcome targets, vendor customer cost containment).

We must also anticipate that our models and strategies will be affected as managed care concepts are considered applicable to vocational rehabilitation. Tighter controls over who will be eligible, what are allowable services, pursuit of economically viable outcomes, and a strong commitment to cost containment and cost reduction are among the principles of managed care that will be reflected in future models of vocational rehabilitation and in employment for people with disabilities. We should expect that these standards will be considered for non disability and for disability programs; that there will be less distinction between programs that serve [illegible] people (i.e., disabled and poor, disabled); that maintaining [illegible] relative to disability rehabilitation needs will become more difficult; and that these added restrictions will need to be thought through as we devise strategies specific to our communities and states.

Quality and Qualifications of Personnel

Next to the consumer, the most valuable (and expensive) resource in vocational rehabilitation is the personnel who work with consumers. Personnel are distinguished from consumers, essentially, in terms of what they can bring to address individuals' needs and help them achieve their preferred outcomes. This means that personnel working in our vocational rehabilitation and/or employment programs have something that consumers do not bring to the rehabilitation process: Specific knowledge (e.g., of employers, disability adaptations, training programs); unique skills (e.g., in counseling, training, planning); and consequential experiences (e.g., have seen and worked with different people following individual routes succeed or fail).

In our look at community-based personnel (including job coaches and work supervisors), research continues to reflect high turnover, low salaries, etc., and high stress (Table 7).

Characteristics of Jobs in Community-Based Rehabilitation

Working in small programs
Low wages and limited benefits
Brief and inconsistent training
Low familiarity with rehabilitation
Isolated working
High stress, undefined roles
High burnout and high turnover
Overwhelmed and limited supervision

Thus we are people working in rehabilitation today with little training and facing high stress demands. The typical community-based worker working with persons with disabilities in community employment have few skills, few qualifications, and are expected to work with little support of any group of rehabilitation professionals or paraprofessionals. Taken together, these conditions and features of community employment models obviously affect services in terms of cost, quality, coverage, and documentation.

Going back to 1988, we know what we needed to do to train personnel

[illegible]

Essential Skills Needed

Communication Skills

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

Technical Skills

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

[illegible]

[illegible]

Knowledge Base
and
Preparation

[illegible]

[illegible]

Additional Requirements for Staff Working in the Community

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Strategies That Achieve Improved Employment Outcomes

[illegible]

University of Arkansas
Arkansas Research and Training Center
in Vocational Rehabilitation

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Building

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

injury. During the evaluation period, the programs served 308 people, with 216 of those receiving significant services. The improved service programs developed under this project typically were based on the supported employment model.

Diffusion Network Project

[illegible]

Staff and consumer involvement in program improvement

Services for people with severe disabilities

Unemployment rate decreased

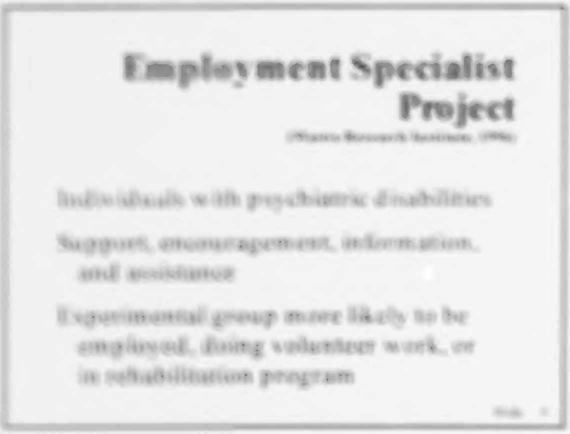
Competitive employment rate increased

Employment outcomes were tracked over a 24-month period. Upon program entry, 76 percent of the consumers were unemployed. At six months, that rate declined to 64 percent, and at the end of 24 months, it had declined to 35 percent. Between the first and fourth follow-up periods, the percent of persons competitively employed increased from 4.6 percent to 25 percent.

During the same time period, persons employed in supported or sheltered employment increased from 31 percent to 40 percent. These major gains in employment were the result of individualized services and support after placement. Consumers were employed in a variety of jobs, the most common being clerical, cashier, building maintenance, and factory assembly positions.

This project demonstrates that community rehabilitation programs can improve their employment programs for individuals with disabilities when provided with ongoing technical assistance from a Research and Training Center. Further, it indicates the important role that Research and Training Centers play in facilitating the implementation of federal and state rehabilitation policy. And most importantly, it demonstrates the role of research-based strategy development in improving services at the community level.

In another example of model building, the Matrix Research Institute in Philadelphia, Pennsylvania, developed an Employment Specialist Project (Slide 7) in which new consumers at a Community Mental Health Center were randomly assigned to an experimental group that received services from vocational specialists. The experimental group was encouraged to consider employment goals; to explore the types of jobs available and the demands that work would make on their lives; to learn more about the financial incentives and disincentives entailed in seeking employment; and to consider a wide range of work-focused goals such as referral to vocational rehabilitation, completion of their education, volunteer activity, or independent and/or assisted job seeking.



Employment Specialist Project

(Matrix Research Institute, 1996)

Individuals with psychiatric disabilities

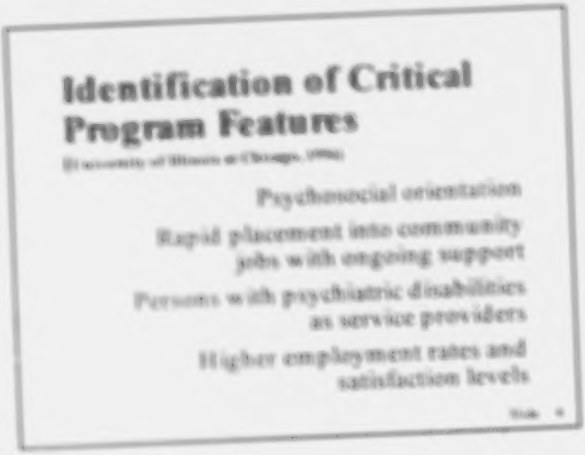
Support, encouragement, information, and assistance

Experimental group more likely to be employed, doing volunteer work, or in rehabilitation program

Slide 7

At the end of a two-year period, individuals in the experimental group, with the support of employment specialists, had made substantial career-focused changes in their lives. Twenty-four percent were competitively employed; 62 percent were in vocational rehabilitation programs; and 15 percent were engaged in volunteer work, thereby demonstrating significantly better results than seen in the control group. This model of straightforward engagement with a "helper," who both believed in the individual's employment potential and made realizing that potential a priority, had a substantial impact on the consumer's willingness to engage and succeed in the rehabilitation process. The Matrix Research Institute's work in testing this model illustrates the potential of a research-based approach to developing employment strategies.

The RTC at the University of Illinois at Chicago has conducted an extensive analysis of rehabilitation programs to identify those features that are most successful with individuals who have psychiatric disabilities (Slide 4). Their review indicates that critical features include rapid placement of individuals into community-based jobs with the provision of ongoing supports over a long period of time. These practices lead to better outcomes than do placements into sheltered workshops or other segregated programs, or providing only time-limited services. These approaches are also generally associated with higher employment rates and higher levels of job satisfaction than other modalities. Their findings also suggest that the use of persons with psychiatric disabilities as providers of vocational services may be an effective and efficient way to deliver services to this population. This comprehensive review of rehabilitation strategies summarizes what we know about "best practices" for people with psychiatric disabilities.



Identification of Critical Program Features

(University of Illinois at Chicago, [illegible])

Psychosocial orientation

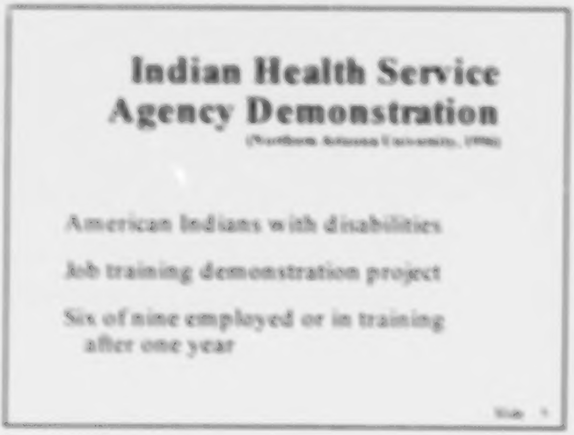
Rapid placement into community jobs with ongoing support

Persons with psychiatric disabilities as service providers

Higher employment rates and satisfaction levels

Slide 4

The American Indian Rehabilitation Research and Training Center at Flagstaff, Arizona, has developed a demonstration program (Slide 5) with the Indian Health Service agency to evaluate the potential of public-sector employment for individuals with severe disabilities. At a one-year follow up, six of nine individuals were employed or still in training. Based on this and other experience with employment issues, this RTC recommends that rehabilitation professionals conduct outreach programs to American Indian populations, work creatively with and demonstrate commitment to Indian communities in developing employment opportunities, and communicate with tribal leaders regarding tribally appropriate and culturally appropriate rehabilitation service delivery. This RTC has also been successful in working directly with Indian communities and consumer groups to identify and document these needs, which in turn provides the evidence these groups require to receive funding for direct service delivery.



Indian Health Service Agency Demonstration

(Northern Arizona University, 1996)

American Indians with disabilities

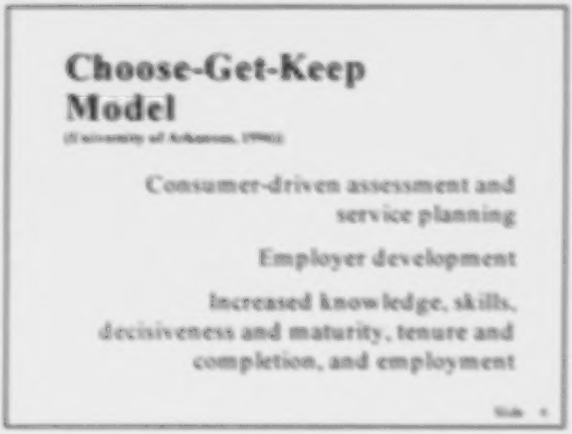
Job training demonstration project

Six of nine employed or in training after one year

Slide 5

The University of Arkansas Research and Training Center at Fayetteville has focused efforts on the Choose-Get-Keep Model (Slide 6) for promoting positive employment outcomes. In this model, the individual with a disability participates in the assessment of his or her employment-related strengths and needs and exercises informed choice in planning the rehabilitation program. This model has been implemented in several types of service delivery settings, including a comprehensive rehabilitation facility, community rehabilitation programs, a school-to-work transition program for youth with disabilities, and other vocational rehabilitation settings.

The model includes such elements as the Job Seeking Skills Assessment, which consists of a method of assessing an individual's competence in completing job application forms and in presenting oneself in the employment interview, as well as the companion GET-IT and Job Application Training that enable an individual to acquire these critical skills. Other components include the Occupational Choice Strategy and Personal Careers Planning, two interventions that assist individuals with disabilities to identify the types of jobs most suited to them and the services they will need to achieve their employment objectives.



Choose-Get-Keep Model

(University of Arkansas, 1996)

Consumer-driven assessment and service planning

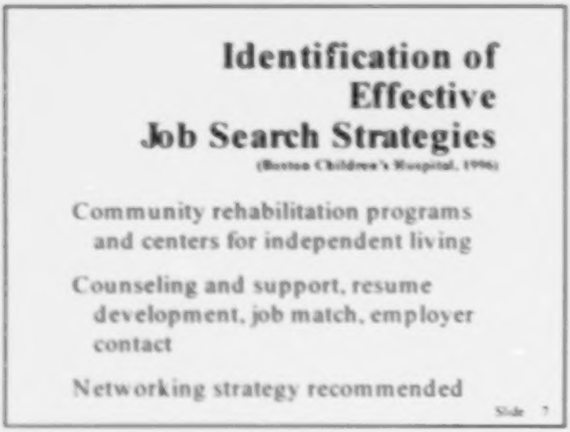
Employer development

Increased knowledge, skills, decisiveness and maturity, tenure and completion, and employment

Slide 6

Over 20 discrete elements of the model are now available for replication by rehabilitation programs. Researchers have found that this Choose-Get-Keep Model can be readily adopted in various settings. The model has been found to result in increased knowledge of oneself and the world of work, increased career decisiveness and maturity, improved skills in completing job applications and job interviews, successful completion of specific occupational tasks, longer tenure and higher completion rates in employment preparation programs, and the acquisition of jobs. Researchers have described how this model can be implemented, and they provide technical assistance to aid adoption. Consumers report that the various components of the model have been useful and have had positive effects on employment skills, knowledge, and outcomes of people with disabilities.

The Research and Training Center at the Children's Hospital in Boston has conducted a national study of employment programs to identify effective job search strategies (Slide 7). Community rehabilitation programs and centers for independent living were asked about their placement strategies with consumers. Staff reported positively on the use of counseling, resume development, informal discussion of vocational interests and goals, matching the consumers to the job, and making repeated contacts with companies. Practices that were used infrequently or viewed as not being effective included public relations events for the agency, hosting a business advisory group, hosting a job fair, offering subminimum wage, or offering to have the consumer on the agency payroll instead of the employer payroll.



Identification of
Effective
Job Search Strategies
(Boston Children's Hospital, 1996)

Community rehabilitation programs and centers for independent living

Counseling and support, resume development, job match, employer contact

Networking strategy recommended

Slide 7

In general, a networking approach, in which the consumer and staff member's personal and professional networks were used to generate job leads, typically resulted in the individual's earning a higher hourly wage and working more hours. This practice also takes less time than other approaches such as agency marketing or traditional job placement strategies.

Program and Policy Evaluation Research

These model-building efforts by the National Institute on Disability and Rehabilitation Research-sponsored Research and Training Centers have made significant contributions to our knowledge about effective employment strategies for people with disabilities.

A second category of research being conducted by Research and Training Centers has to do with program and policy evaluation (Slide 8). This category includes outcome analyses of current practices, assessment of policies affecting employment, and generation of program and policy alternatives.

These activities complement the model building being done by Centers, permit us to examine the delivery of services in a broader context, and allow us to identify policy changes necessary to stimulate and support program improvement.

Program and Policy Evaluation

Outcome Evaluation

Policy Analysis

Policy and Program Alternatives

Slide 8

For example, the Research and Training Center: Rural at the University of Montana in Missoula, Montana, has conducted a series of studies on the use of self-employment as a rehabilitation outcome (Slide 9). This research has focused on counselors' use and perceptions of self-employment and on state agency policies toward self-employment.

Their findings are important because self-employment accounts for no more than 2.6 percent of employment outcomes nationally, even though people with disabilities who are not vocational rehabilitation clients report a 12 percent self-employment rate.

Self-Employment Research

(University of Montana, 1996)

Counselors' attitudes shaped by experience, office atmosphere, and agency policy

Agency policies vary

Suggests need for information, training, and support

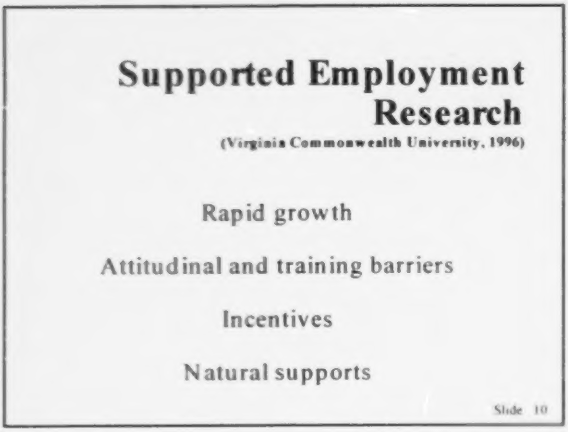
Slide 9

In a study of counselors' attitudes, the RTC: Rural found that attitudes toward self-employment were shaped by experience, office atmosphere, and state policies and guidelines. Counselors' experience with self-employment strategies was the strongest predictor of attitudes, suggesting that training and support might contribute to more positive opinions. Counselors' ratings of office atmosphere were highly influenced by their ratings of state agency policy toward self-employment, suggesting that a more positive stance would result in greater use of self-employment.

Agency policies and guidelines vary considerably from state to state, with only one state having all the elements of a model policy developed by the RTC: Rural. Many states either lack written policies regarding self-employment or require that counselors eliminate all other viable rehabilitation options before considering self-employment. Eleven state policies included negative statements about self-employment. The research indicates that state agencies could benefit from additional information regarding the importance of self-employment to people with disabilities and assistance in developing more receptivity to this alternative. RTC: Rural will develop model procedures for vocational rehabilitation agencies, based on the model policy already developed, and will develop training materials on self-employment for vocational rehabilitation counselors. Their work illustrates the potential of how careful policy-relevant research can affect the practices of vocational rehabilitation agencies.

Similarly, the Virginia Commonwealth University RTC has conducted many policy analyses concerning the use of supported employment as a strategy for placing and maintaining individuals with severe disabilities in employment (Slide 10). They have tracked the implementation of federal supported employment policy for well over a decade. Their work has documented the significant growth in the use of supported employment--from 10,000 people in 1986 to over 110,000 in 1993-- as well as the structural and financial obstacles we face in making this service option available to all those individuals who could benefit from it.

In a recent overview of critical issues facing those who work in the field of supported employment, it was noted that almost 70 percent of supported employees have mild or moderate intellectual disabilities and far fewer have severe disabilities. Attitudinal and training barriers may account for this pattern in that rehabilitation professionals who are not well-trained in strategies for putting people with severe disabilities to work may be less likely to view these individuals as able to maintain employment.



Supported Employment Research

(Virginia Commonwealth University, 1996)

Rapid growth

Attitudinal and training barriers

Incentives

Natural supports

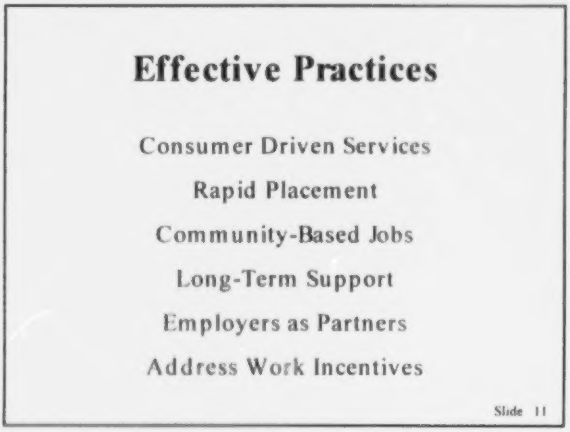
Slide 10

Also, careful policy analyses are critical to understanding how to use the available incentives for employers and individuals with disabilities to encourage placement. VCU has identified a number of policies such as the Disabled Access Tax Credit and the Targeted Job Tax Credit, which support employers' participation in supported employment. This analysis, coming on the heels of Virginia Commonwealth University's long history of model-building, helps us understand how the use of valuable employment models may be expanded and improved.

Lessons Learned From Research

The knowledge base accumulated through these program and policy analyses and model building efforts have taught us a great deal about how to improve employment outcomes for people with disabilities. We generally know what works and how to put effective practices in place. We can summarize what we know about effective employment strategies in three major points.

First (Slide 11), the model-building activities of Research and Training Centers indicate that the most promising strategies appear to be those that actively and meaningfully involve consumers in the rehabilitation process, have a sense of urgency about getting people jobs in the community as opposed to a segregated program, and provide personalized support over an extended period of time. Effective strategies also focus on the development of natural supports, establish partnerships with employers, and provide assistance to consumers regarding health care coverage and the work incentive provisions of Social Security programs.



Effective Practices

Consumer Driven Services

Rapid Placement

Community-Based Jobs

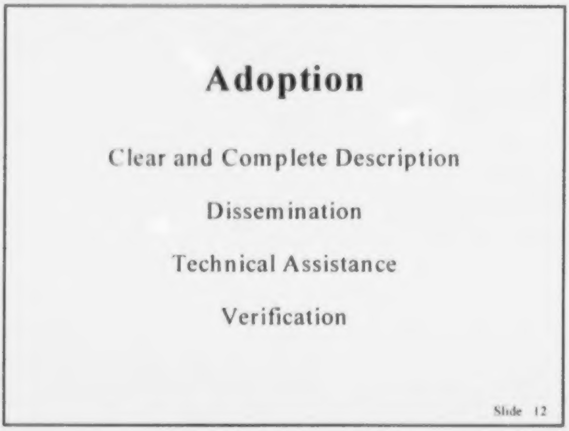
Long-Term Support

Employers as Partners

Address Work Incentives

Slide 11

Second, the adoption (Slide 12) of innovative approaches is encouraged by the development of clear and complete descriptions of methods that are highly replicable and, at the same time, highly adaptable. Having discovered and demonstrated effective strategies, researchers have an obligation to promote the adoption of these methods through dissemination of information that reach the intended targets--people with disabilities, service providers, and policymakers. When this obligation is met, the research process yields substantial payoffs to society.



Adoption

Clear and Complete Description

Dissemination

Technical Assistance

Verification

Slide 12

And finally, we know that adoption of innovative practices is a cooperative and collaborative effort (Slide 13), requiring the active participation of researchers, service providers, and consumers. Research and Training Centers actively seek help in adopting and adapting the strategies we have developed in a counselor's program. We are partners in providing services that place people with disabilities into community-based employment rapidly, with appropriate ongoing support. We are partners in establishing programs that help consumers develop ongoing support and address health care and work incentives. And we are partners in the counselor's efforts to reach out to employers.

Collaboration

Partnerships + Participation

equals

Innovative Practices

Slide 13

Conclusion

RTC efforts complement rehabilitation counselors' efforts. RTCs are concerned about the future of people with disabilities in this country. We are committed to making work pay, stressing individual responsibility, and protecting the rights of people with disabilities to equal opportunity and access. The Research and Training Centers are working alongside rehabilitation agencies and programs to ensure that progress continues in finding employment strategies that work.

Author's Note: For further information contact Kay Schriner, Arkansas Research and Training Center in Vocational Rehabilitation, University of Arkansas, 346 North West Avenue, Fayetteville, AR 72701. Phone: 501-575-3656. Fax: 501-575-3253. E-mail: kays@comp.uark.edu

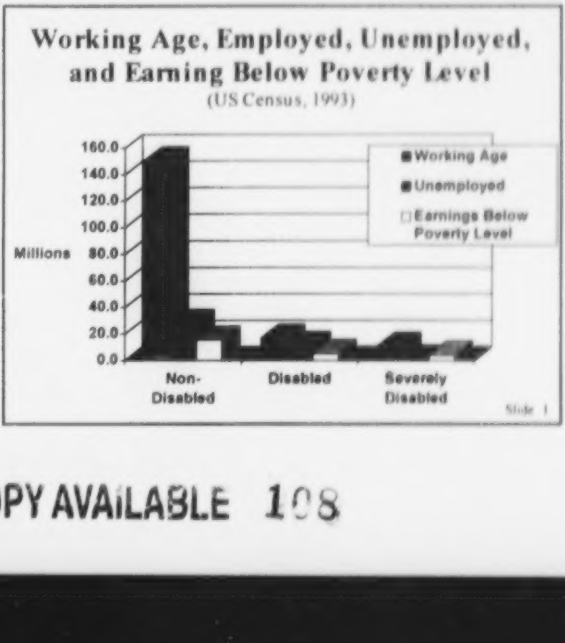
Lessons and Recommendations

Fredrick E. Menz
University of Wisconsin-Stout
Rehabilitation Research and Training Center on
Improving Community-Based Rehabilitation Programs

My colleagues and I have provided a series of slices through their research. Permit me to provide some thoughts or "lessons" that can be instructive to what you do during and following this conference.

Lessons on What We Know About the Needs

What do we know about needs to be addressed? Earlier we talked about how we are in fact moving more people into a wage economy, yet we are also noting that significant numbers of people who are rehabilitated exit the program with incomes that place them below the poverty line (Slide 1).



Working Age, Employed, Unemployed, and Earning Below Poverty Level

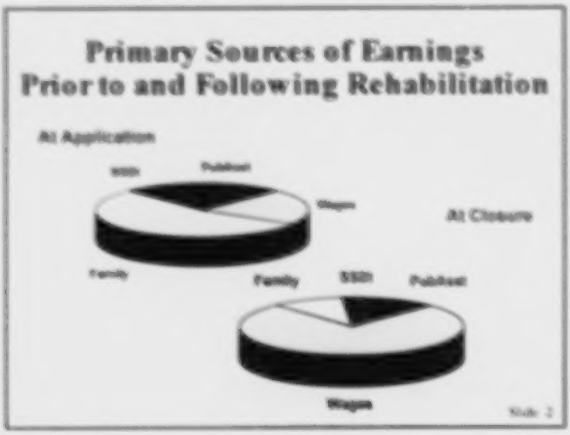
(US Census, 1993)

Slide 1

BEST COPY AVAILABLE

As this slide indicates, there are significant needs. The research and evidence from practice indicate that there are ways to make inroads resolve these needs.

We are also noting that wages comprise the major source of income for people completing rehabilitation and entering competitive employment and that reliance on subsidies and family resources are most dramatically affected (Slide 2). We are seeing that persons with severe disabilities, persons with specific disabilities, persons from minority cultures, and persons with disability from rural communities have lower likelihoods of success and face greater barriers to achievement of competitive earnings.



Primary Sources of Earnings Prior to and Following Rehabilitation

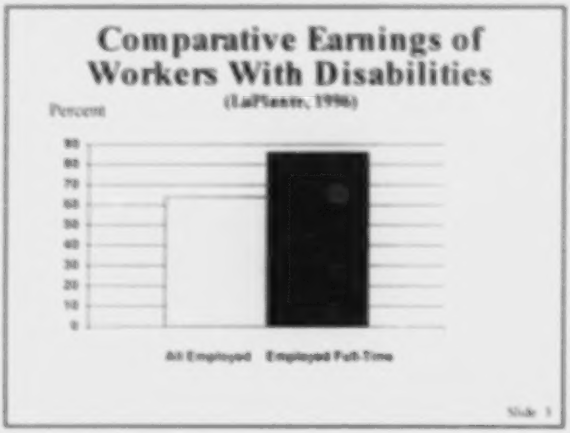
We are noting that the rehabilitation program is fulfilling the public's mandate and is increasingly serving a more severely disabled populations, that rehabilitation rates are not declining, and that there are indications that those rates are gradually improving.

The odds are greater that persons who enter the rehabilitation program on SSDI and lack an employment history will not be closed into competitive employment.

We are seeing that there is wider acceptance and use of non-institutional, community employment options in rehabilitation and that these options yield important productivity, wage and satisfaction benefits, though the jobs now being accessed are not necessarily ones in growth or career fields or always in fully integrated settings. Both the types of jobs acquired and how people with different disabilities go about acquiring jobs also differ.

We are also noting that issues remain on how to provide for the sustaining supports necessary to increase the numbers of persons in supported employment, increase the necessary resource base, and come to grips with the joint problems of defining and demonstrating the effectiveness of natural supports and of ensuring that the intended beneficiaries of supported employment are served under this model.

We are seeing gains in earnings, but such gains are proportionately below those of non-disabled workers (Slide 3). We are also seeing that economic and workforce participation of persons with disabilities continues to be significantly less than that of their non-disabled counterparts. We are also seeing gains and evidence that demonstrate higher earnings capabilities for people with severe disabilities, though such gains can easily be out-paced by inflation or any recession that might hit in our respective communities in the remainder of this century.



Comparative Earnings of Workers With Disabilities

(LaPlante, 1996)

Slide 3

We are seeing readiness and potential acceptance in the American workplace for people with disabilities and that American business is reporting that the costs of accommodations are significantly lower than anticipated. But, we are also seeing continued limitations in knowledge of the Americans with Disabilities Act among businesses, particularly among small- to medium-sized businesses, where there are fears, both real and unrealistic, about the added costs and adverse impact upon their goal of accommodating people with disabilities.

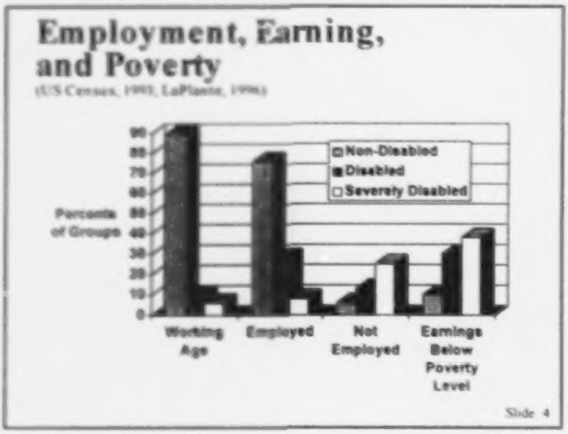
BEST COPY AVAILABLE

We are seeing community-based providers taking on a greater and more visible role in providing their services through community settings and in providing complementary services to a broader array of populations that includes transitional populations (e.g., youth, welfare), altered service configurations (e.g., community career centers, integrated for-profit industries), and more complicated methods for supporting needs of people with disability needs (e.g., use of PASS plans, accessing SSDI).

We are also seeing problems and needs arising as the several public reforms are undertaken (health, welfare, training) and beginning to sense serious public policy and social implications for marginalized populations such as people with disabilities. Access to supports and subsidies needed by severely disabled people have been hard won and now are in jeopardy (e.g., SSDI, welfare, Medicaid reduction plans). As public policy and/or public temperament shift to conserve or contain expenditure for entitlements, individual rights to these sources are in jeopardy as so many new populations draw upon them, remain on them, and are being challenged to get off such supports.

We are also seeing that people with different disabilities have different needs for support, that such support needs are highly individual, follow different patterns of occurrence and reoccurrence, and when met, permit people with profound impairments to work competitively. We are also seeing that many of these individuals are working in jobs with wages and earnings that are above minimum wage levels and yield better earnings than those in noncompetitive and institutional work programs. But, such achievements also seem dependent upon type of disability, presence of a work history, and whether the individual has or has not been publicly subsidized when he/she entered rehabilitation.

The interrelated areas of poverty, economic fragility, disability, and empowerment are ones towards and through which we should all work more successfully (Slide 4). Rehabilitation is not simply about placement and training or about jobs and employment. While rehabilitation programs do not directly address issues of poverty, the rehabilitation process is about introducing resources and is a way of thinking for individuals with disabilities. Rehabilitation can affect the potential of people with disabilities to rise above abject poverty because it is about teaching "people how to fish" (if you will permit me to refer to this old proverb); about becoming able to take ownership for their own rehabilitation; about re-entering the employment sector in jobs and employment that translates into economic and social participation; about increasing parity; and about using clients' skills to access resources that sustain their chosen course throughout their lives.

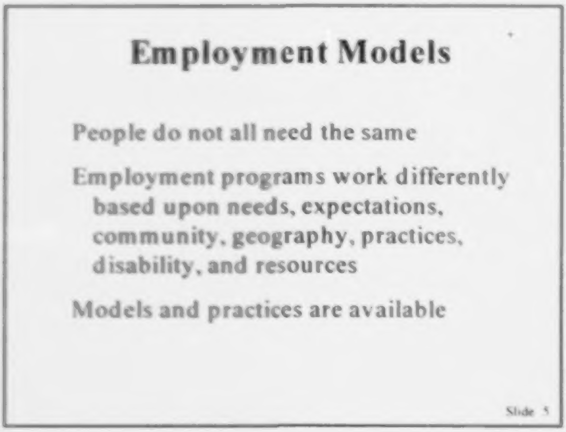


Employment, Earning, and Poverty

(US Census, 1993, LaPlante, 1996)

Lessons From Research Innovation in Employment Models in Rehabilitation

What do we know about employment models (Slide 5)? Several important principles:



Employment Models

People do not all need the same

Employment programs work differently based upon needs, expectations, community, geography, practices, disability, and resources

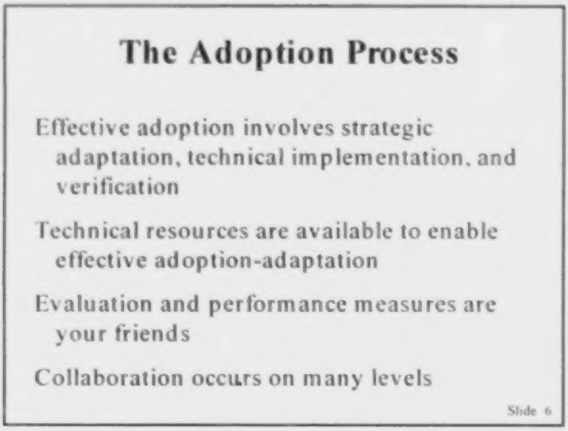
Models and practices are available

BEST COPY AVAILABLE

First, people do not have all of the same needs at the same time, and needs can vary as widely within a group of people with the same disability over time as they do between disability groups. Our practices and models work with significant proportions of our clientele when these conditions are recognized, but they do not work unilaterally to the level of effect we may desire.

Second, employment programs do work, particularly as they are adapted for location, economic conditions, and the different expectations of communities and consumers. There are models and practices available that can be adapted for communities and a community's clientele. Some examples of these were discussed by my colleagues in their presentations on strategies and people.

Third, employment models and strategies are adapted to local conditions, not implemented in a purely linear fashion (Slide 6). The adoption process accounts for conditions of "place" and "context." Strategies are available that require that the potential adapter have a plan to adapt, approach adaptation with technical assistance, and have monitoring procedures in place to verify the presence and level of effectiveness once the plan has been implemented. Technical resources, as we've indicated, are available through the national network of Rehabilitation Research and Training Centers funded by the National Institute on Disability and Rehabilitation Research, as well as other agencies and entities.



The Adoption Process

Effective adoption involves strategic adaptation, technical implementation, and verification

Technical resources are available to enable effective adoption-adaptation

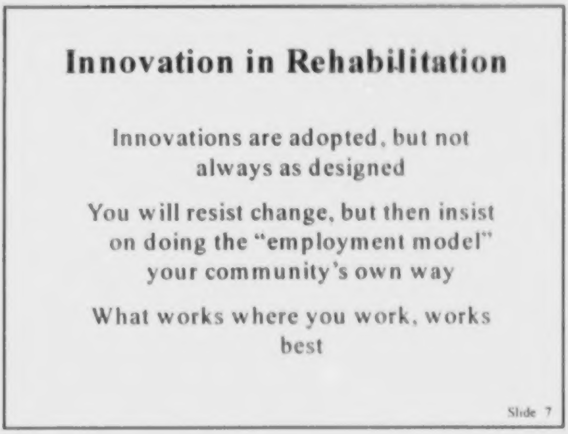
Evaluation and performance measures are your friends

Collaboration occurs on many levels

Slide 6

Fourth, program evaluation and performance measures and collaboration are almost always in evidence when an "employment model" is found to work. How we go about doing innovations, though, seems to be one of the great mysteries in this vocational rehabilitation field.

Fifth, innovations and best practices are adopted (Slide 7). However, they are never adopted in the way we plan them to be. Most model builders (e.g., Center researchers) know this through hard experience. You resist invention and change, but once you finally decide upon an new approach, you adapt the employment model to your own community's way. The message that keeps coming back is that "what works for you is what works where you work and it works best there."



Innovation in Rehabilitation

Innovations are adopted, but not always as designed

You will resist change, but then insist on doing the "employment model" your community's own way

What works where you work, works best

Slide 7

Lessons and Facts About Rehabilitation Practices and Success

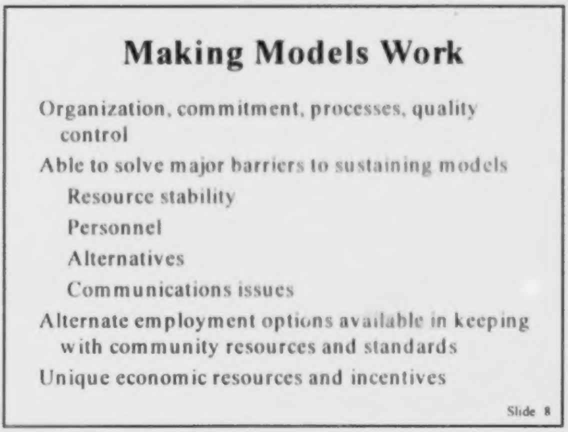
What have we learned from the employment research on vocational rehabilitation? How should you go about selecting an innovative practice? Can you expect those practices to yield positive outcomes? Certain allegorical truths seem to be in evidence from the research (and from practice as well):

- Bathing before a job interview beats never bathing at all.
- If the shoe fits, wear it, otherwise try another shoe.
- When people are taught how to find jobs, they tend to find them.

- People who know how to work make better employees.
- People who know how to work together are more employable.
- To be rehabilitated and to live in the community are not the same.
- To be competitively employed and to achieve economic parity are obviously not the same end points.
- Believing (in people and what you do) doesn't make what you do effective, but it certainly is a good point at which to begin the journey.

Lessons Learned About Making Employment Models Work

What have we learned about what makes an employment model work? We know that there are similarities among models that make them variously effective. While there sometimes seem to be as many models as there may be practitioners or client populations, effective schemes are often evident and invariably dependent upon needs, competence, and accessible opportunities within the context of your community.



Making Models Work

Organization, commitment, processes, quality control

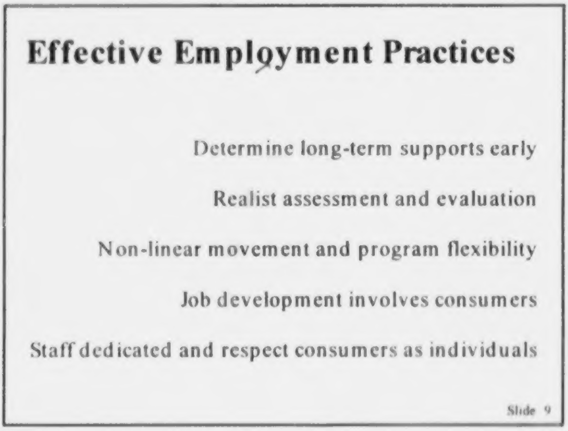
Able to solve major barriers to sustaining models
  Resource stability
  Personnel
  Alternatives
  Communications issues

Alternate employment options available in keeping with community resources and standards

Unique economic resources and incentives

Slide 8

We know that if we are going to do effective employment practices (Slide 9), we need to think in terms of the long run for people and that they are not merely going into a first job, but into careers (however you may otherwise define their sequence of jobs). We need to be doing realistic assessments. We must be reminded that neither the occurrence of disability nor achieving a valued rehabilitation condition occur in a straight line.



Effective Employment Practices

Determine long-term supports early

Realist assessment and evaluation

Non-linear movement and program flexibility

Job development involves consumers

Staff dedicated and respect consumers as individuals

Slide 9

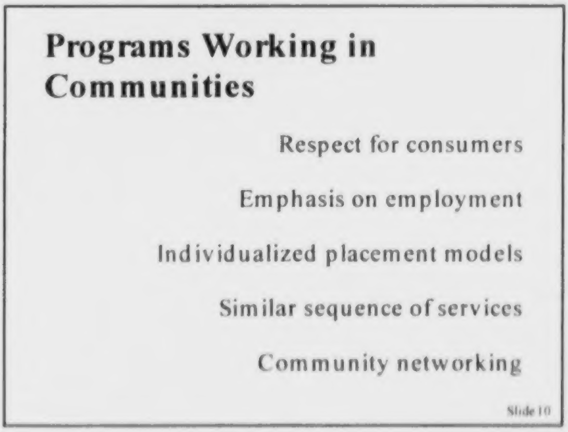
Effective rehabilitation programs are not static programs provided in isolation from personal and socio-economic-political events that surround access to community-valued employment.

We know that sustainable rehabilitation programs require flexibility, substantial practical and theoretical change, and adaptations over time that incorporate rather than resists innovation and present "realities." Institutional memory is not an end in itself. Change happens, even when we don't notice it. When programs continue to yield strong, positive results, they have evolved in keeping with external demands and your staff's greater capabilities.

We know that rehabilitation, job development, and placement practices require further development that involves people who are seeking the jobs, people who are providing jobs, and people who are privy to the new realities of the day. Awareness of adaptations, possibility for improvement, and common concerns with quality control bring to the attention of all involved the clues as to where and how to refine your approach or to direct resources in ways that will be unique only today.

We know that we need to be employing and training staff who are capable, skilled, adaptable, and dedicated to the goals and missions of our rehabilitation programs, in spite of seeming constrained resources. We know that it is cheaper to train and keep competent people than it is to hope that unskilled, transient staff will work out, do what is needed, or stay on the job because they are "dedicated" to low wages and thrive on stressful working conditions.

We know that in working in communities (Slide 10) and in trying to do rehabilitation, it is respect for consumers, emphasis on employment, and recognition of individual goals that are pillars in our practices and our values.



Programs Working in Communities

Respect for consumers

Emphasis on employment

Individualized placement models

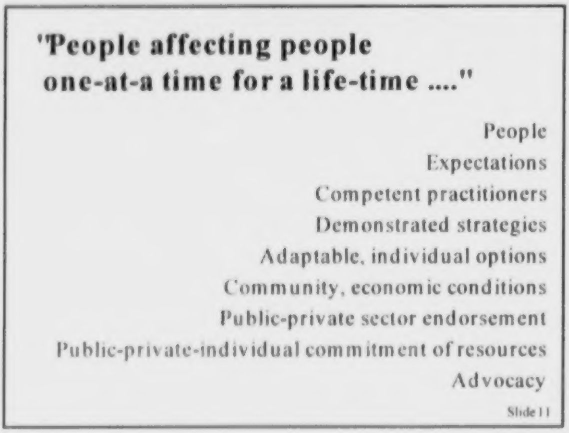
Similar sequence of services

Community networking

Slide 10

We know that we are part of a greater enterprise committed to people with disabilities and equity in participation in employment and communities for the past 75 years (Slide 11). From our research, clinical experience, and continuing involvement with you and your clients, we know that "rehabilitation is about" what we do with and in our communities.

We also recognize that public-private support for our efforts must be in place and cannot be assumed, but must continue to be earned. We also know that there are public-private and individual commitments of resources that naturally occur in the rehabilitation process. And, we know that we always will have to be advocates for the program and the people whose needs we are serving.



"People affecting people one-at-a time for a life-time ...."

People
Expectations
Competent practitioners
Demonstrated strategies
Adaptable, individual options
Community, economic conditions
Public-private sector endorsement
Public-private-individual commitment of resources
Advocacy

Slide 11

Lessons or Clues to the Questions You Should Ask of Models

Some of you have come to this conference in hopes of disseminating your "models." Many of you are here to find models and practices that you can apply through your agencies and in your communities. The following are some clues or guidelines you may wish to apply as you examine the various models for their applications with your clientele and conditions. There are at least four "rules" to apply and some essential conditions to look for when you consider a "model" offered to you for your inspection. First the rules:

- **Rule 1**. If it makes sense, it probably isn't for your clients.
- **Rule 2**. If it works, it's probably a variation on a theme, so why not just sing the original song.
- **Rule 3**. If somebody is willing to admit that he discovered it, he's probably the culprit -- and maybe it actually works.
- **Rule 4**. If it requires charisma, don't bother with it.

Essential Conditions to Look for (or Ways to Ask the Really Important Questions)

The following are actually lessons that have come from our empirical research, though I'm not sure that you'll be able to track back to where they came from, and I'm certain none of the originators of these ideas will be willing to lay claim to them as presented here. They do, however, seem to me to be the really essential conditions, the really important questions you need to ask, or, at worst, "obvious truths supported by a significant body of empiricism."

- **If I'm going into construction, what do I have to wear?** To get and keep a job we have to be job appropriate. Can or will this practice deal with reality in your community?
- **Does this come in my size?** Oftentimes, our program practices or ideas about what works will only fit one foot, or a time past, or a population we no longer serve, or some very specialized conditions. One size will not fit all people, all communities, or all "contexts," or work in all "places." You should think out what the conditions are and decide whether your needs come up to the "size" offered by the new model.
- **Who's to say the shoe fits?** Besides checking out the conditions for the practice, check out whether the practice is in keeping with the goals and preferences of your clientele. You may be responsible for selecting or going along with the model or practice, but you should also be keeping in mind how saleable it is with your clientele. "Fit" is the creation of a responsive rehabilitation program that is driven by choice, ownership, and is seen as effective in the opinion of or the perspective of the individual.
- **Is this something off the rack at Wal-Mart or is it really a new model?** Is this another wolf in sheep's clothing? The names and labels we adopt in rehabilitation don't always tell you about the model and whether the model is truly innovative. Look for characteristics under the label and for evidence of quality in the evaluation data. Are some subtle differences in these characteristics (or outcomes) meaningful, worth bothering with, or worth the costs associated with having them? What are its cotton, steel, evidentiary basis; tensile strength; and human friendliness? Change and innovation do not always produce better results.
- **If your uncle were to wear this, would he get a job?** How differently, respectfully, and realistically does the practice view the individual, employers, and employment demands and benefits. Does this practice introduce attitudes, values, and beliefs about any of those

three that can create barriers for individuals or their success in a job or career of their choice?

- **Can it be washed at the laundromat?** What maintenance issues are involved with the proposed practice? Changes and resources are typically examined up front (i.e., initial acquisition costs). But what will be involved in keeping the program going as its "fabric" becomes worn or as others become involved in its care and feeding. Are the maintenance issues realistic in today's marketplace? What evidence is there that this model has ever been adapted or evolved?

- **If you are caught in the rain, will you stay dry?** How dependent is the model or practice upon a given set of economic or community conditions? Has the practice had to weather any important changes? Some of the important changes to be concerned with are staff-turnover, economic swings, added competition, down-sizing, and parent-family concerns. In other words, can it adapt as changes occur in the economy or due to other events?

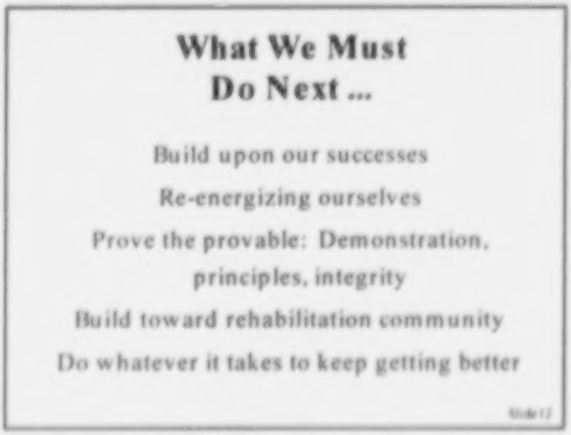
- **If you wear this, will anyone fantasize about hiring people with disabilities?** Does this practice or model promote the goals of the ADA for people with disabilities? Does this practice increase the likelihood that more individuals with disabilities will be viewed, accepted, and hired because of what they *can* do?

- **How would you explain why you are dressed the way you are to an employer?** Is this an appropriate practice? Does this practice have community credibility? Does it place rehabilitation outside the mainstream of the community or does it bring rehabilitation into and become seen as a legitimate process? How demeaning, depersonalizing, distinguishing, or devaluing of individuals and their right to choose is this alternative?

Lessons on Next Steps to Improving Quality of Rehabilitation Outcomes

What is next for us to do (Slide 12)? First, I think we have to get back together as a rehabilitation community; build upon our successes and re-energize ourselves because we are successful and we are capable greater success.

As the papers have suggested, there are important stories of success to celebrate and equally important problems to solve. Some of what we need to do is empirical and some is attitudinal:



What We Must Do Next ...

Build upon our successes

Re-energizing ourselves

Prove the provable: Demonstration, principles, integrity

Build toward rehabilitation community

Do whatever it takes to keep getting better

Slide 12

- Continue to pursue practices that do work and get on to demonstrating where new or adaptable practices meet unique needs of people coming into rehabilitation; now and in the future.
- Do not confuse our bottom line with what we do, our objectives with success, or what we are most comfortable doing with what our clients need. Outcomes are only an indication of our success, not the process we used to achieve those ends or the human needs that our consumers expected us to address.
- Build more toward the rehabilitation community, cease institutional bickering, and resist temptations to secularize scarce resources.
- Cherish and share what we do well and spurn ignorance and denial of what we no longer do well.
- Promote what works and fairly demonstrate what doesn't work.
- Persist to do what we do best and get on with solving the important human and program problems that prevent us from doing better.

In effect, "We've got to do whatever it takes," as Commissioner Schroeder said in his opening remarks, "to make sure that we are improving." And, I would add, we much continue to be sure that we meet the public's and the individual's responsibility invested in us.

Closing Thoughts

Now, let me just conclude with some personal lessons and observations about disability, rehabilitation, research, our practices, and what it is that is real in this enterprise of rehabilitation.

- **What We Are About in Rehabilitation.** Disability is a crap shoot. Rehabilitation is about affecting the odds that favor impairment. Research is about setting odds that favor individuals.
- **Reminders to Those of Us Involved in the Enterprise.** People do learn and systems do change. Our processes do work, and often, they work best when they have capable people doing them. Our outcomes are achievable and are worthwhile. We don't always succeed with everyone, everyday, but we succeed more often than not. Sometimes we succeed despite what we intended to do and in ways that surprise us. Finally, every day awaits another success … and sometimes it just rains and we get wet.

Author's Note: For further information contact Fredrick E. Menz, Research and Training Center on Improving Community-Based Rehabilitation Programs, University of Wisconsin-Stout, 214 10th Avenue, Menomonie, WI 54751. Phone: 715-232-1389, Fax: 715-232-2251, TDD: 715-232-5025, E-mail: menzf@uwstout.edu

2

Program Oriented Research

Service Delivery Strategies For Promoting Employment Outcomes

---

Roy C. Farley and
Kay Schriner
University of Arkansas
Arkansas Research and Training Center
in Vocational Rehabilitation

The goal of vocational rehabilitation programming is the achievement of satisfying employment and career outcomes for people with disabilities. To obtain satisfying employment outcomes, the individual must successfully complete several important tasks. Included are such demands as exploring self and the world of work, selecting a suitable and appropriate career goal, developing a plan to achieve the goal, preparing oneself to be successful in one's chosen career, finding employment opportunities, getting a job, adapting to the workplace and the work world, retaining employment over time, and progressing or advancing in one's career (Farley, Bolton, & Little, 1990; Farley, Bolton, & Taylor, 1993). The more successful the individual is at completing these tasks, the greater the probability of his/her achieving satisfying employment outcomes.

Many factors contribute to how successful an individual will be at carrying out these tasks and obtaining satisfying employment outcomes. The major influencing variables generally fall into two broad categories. One of those categories focuses on the person and includes such variables as work-related competencies, values, attitudes, skills, health, etc. (Farley, Bolton, & Taylor, 1993; Farley, 1992). These factors have historically received the most attention when preparing for employment. The other major category focuses on environmental and community variables. These have received less attention in employment programs but have received increased emphasis in recent years. The following have been cited as examples: (a) workplace variables, such as accessibility factors, technology, and employer and co-worker attitudes; (b) community variables, such as transportation, housing, accessible training and service delivery programs, the economy, and support networks; and (c) social, economic, and political factors, such as legislation, labor market trends, and benefits (Farley, Bolton, & Taylor, 1993; Harris & Associates, 1986; National Council on Disability, 1986; Urban Institute, 1975). How successful a person will be at obtaining satisfying employment outcomes will be a function of the interaction between these two broad categories of variables.

One of the roles of the rehabilitation service provider is to assist individuals to successfully carry out the major task demands that will increase the probability of their achieving satisfying employment outcomes. This can best be done by focusing on both person and community variables. The Arkansas Research and Training Center in Vocational Rehabilitation has a long history of conducting research, dissemination, training, and technical assistance activities in support of the vocational rehabilitation program with a mission of maximizing the employment preparation and employment outcomes for people with disabilities. One of the Center's major goals is to develop effective strategies and products that can be used by the rehabilitation service provider to promote employment outcomes for consumers. The following is a discussion of some of those strategies and products that have been developed during the past decade for use by service providers by this Center. Each has been developed with assistance from rehabilitation practitioners and consumers and have been demonstrated to be effective with consumers who have varying disabilities and diverse backgrounds.

Strategies

The goal of vocational rehabilitation is employment. Achieving employment outcomes can be viewed from a developmental perspective (leading to a career) rather than a static one (completed once an entry-level job is secured). A career development focus to employment can help crystallize the target variables that rehabilitation service providers and their consumers need to focus on. Acknowledged authorities in career development (Crites, 1978; Holland, Daiger, & Power, 1980; Super, 1990) identify various stages of the career development process, including exploration, choice, establishment, maintenance, advancement, and retirement. Faculty at the Boston Center for Psychiatric Rehabilitation

(Danley, Rogers, & Nevas, 1989) and at the Arkansas Research and Training Center in Vocational Rehabilitation (Farley, Bolton, & Little, 1990; Farley, Little, Bolton, & Chunn, 1991) describe a model consistent with the vocational rehabilitation process that focuses on vocational choice, job acquisition, and job retention and advancement. Frequently referred to simply as the Choose-Get-Keep Model, it can serve as a foundation or blueprint for designing, developing, and implementing strategies to promote employment preparation and satisfying employment outcomes. During the past decade, faculty at the Arkansas Research and Training Center in Vocational Rehabilitation have developed a large number of strategies for service delivery use that focus on helping people with disabilities choose, get, and keep employment. A participatory action research approach allowed for rehabilitation service providers and their consumers to assist in their development and evaluations. Some of the following strategies are designed to focus on a specific aspect of choosing, getting and keeping employment, while others cut across all three phases.

Strategies for Identifying Employment Strengths and Needs and Planning Services

The process of identifying strengths and employment needs is one of the first hurdles the service provider and consumer confront. This process allows the consumer to develop needed knowledge of self and the work world and provides the basis for vocational decision making and program planning. Several strategies, techniques, and tools have been developed for use by the service provider and consumer to facilitate this process. They include The Employability Maturity Interview, Occupational Report, Vocational Personality Report, Work Temperament Inventory, Job-Seeking Skills Assessment, Work Personality Profile, Work Performance Assessment, Work Experience Survey, Scale of Social Disadvantage, and Empowerment Scale. Table 1 describes each of these strategies.

Strategies for Involving Consumers in the Assessment Process and Promoting Informed Choice and Decision Making

Consumer involvement is not new. It has traditionally been a goal in the vocational rehabilitation process (Burge, 1972; Genskow, 1970; Johnson, 1973; Spike, 1976). In the 1980s, the Chicago Jewish Vocational Service (Kaskel, 1983) and Vash (1984) proposed and provided strategies for involving clients in the evaluation process.

Table 1. Strategies for Identifying Employment Strengths and Needs and Planning Services

Strategy	Description
Employability Maturity Interview (EMI)	The EMI is a structured interview designed to measure clients' readiness for vocational planning by focusing on their levels of self-knowledge and occupational information.
Occupational Report (OR)	The Occupational Report is a computer-generated report that provides a list of occupational areas for which a VR client possesses essential vocational aptitudes.
Vocational Personality Report (VPR)	The Vocational Personality Report is a computer-generated report that provides information on VR clients' vocationally relevant personality characteristics for use in employment counseling and service planning.
Work Temperament Inventory (WTI)	The Work Temperament Inventory and computer report generates a normative profile on the 12 work temperament scales and then lists up to 12 work trait groups for which the respondent is temperamentally suited.
Job Seeking Skills Assessment (JSSA)	JSSA provides an instrument for systematically assessing job seekers' competence in two critical tasks in the job search process: (1) completing job application forms and (2) presenting oneself in the employment interview.
Work Personality Profile (WPP)	The Work Personality Profile is a work behavior rating instrument assessing those capabilities that satisfy fundamental work role requirements, i.e., work attitudes, values, habits, and behaviors that are essential to achievement and maintenance of suitable employment.
Work Performance Assessment (WPA)	The Work Performance Assessment is a work simulation procedure designed to assess an individual's response to typical on-the-job supervisory behaviors.
Work Experience Survey (WES)	The WES is a scale that can be used to identify individual and worksite factors that affect job retention.
Scale of Social Disadvantage (SSD)	The SSD is used to operationalize the concept of severe social, vocational, economic, and educational disadvantage and is predictive of vocational rehabilitation closure status.
Empowerment Scale (ES)	The ES measures the multi-dimensional construct of empowerment for use in vocational rehabilitation service provision.

In recent years, faculty at the Arkansas Research and Training Center in Vocational Rehabilitation (Akridge, 1993; Farley, Bolton, & Taylor, 1993; Schriner & Roessler, 1988) developed and demonstrated strategies that were designed to involve consumers as equal partners in the assessment and planning process. These strategies provided the service provider with the structure and tools that resulted in consumers acquiring the needed knowledge to make informed choices and effectively participate in the decision-making process. Examples of these strategies include the Occupational Choice Strategy, Know Thyself, and Personal Careers Planning. Table 2 provides a brief descriptions of these strategies.

Table 2. Strategies for Involving Consumers in the Assessment Process and Promoting Informed Choice and Decision Making

Strategy	Description
Occupational Choice Strategy (OCS)	Occupational Choice Strategy focuses on vocational exploration and decision making, including the provision of occupational information and the assessment of aptitudes and interests. Structured exercises provide practice in vocational problem solving in relation to vocational choice.
Know Thyself (KT)	Know Thyself is administered on an individual basis by a counselor or evaluator. The objective is to actively involve the participant in the vocational assessment and service planning process. The activities include an in-depth review of test results with discussion of the implications for service planning.
Personal Careers Planning (PCP)	Personal Careers Planning is a strategy for empowering persons to direct their own vocational planning.

Strategies for Developing and Implementing Employment Assessment and Preparation Programs in Service Settings

Excellent tools have been developed to facilitate vocational choice, job acquisition, and retention, but little has been done to create models for overall, comprehensive, and integrative employment assessment and preparation programs that can be used by service providers in the field. The Choose-Get-Keep Model represents a useful strategy for developing or upgrading programs in service settings. This strategy is described by Farley, Bolton, and Little (1990) and Farley, Little, Bolton, and Chunn

(1991). In addition, the model is accompanied by a complete training package (Farley & Bolton, 1994) designed to train practitioners in its implementation. Table 3 provides a brief description of the Choose-Get-Keep Model.

Table 3. Strategies for Developing and Implementing Employment Assessment and Preparation Programs in Service Settings

Strategy	Description
Developing an Employability Assessment and Planning Program in Rehabilitation and Education Settings	
Monograph	Describes the model.
Training Package	For instructors to teach the model.
Journal Article	Describes the model.

Intervention Programs to Help Prepare Consumers for Employment and the World of Work

As mentioned in an earlier section, success of an individual in obtaining a satisfying employment outcome is a function of the interaction of multiple variables within the two broad categories of person factors and environmental factors. This section introduces intervention programs designed to affect person variables that determine how successful an individual will be at completing the major tasks involved in choosing, getting, and keeping employment. Those tasks include selecting realistic vocational goals, making effective vocational decisions, developing plans, finding job opportunities, presenting oneself effectively in employment situations, adapting to the workplace, and performing job tasks. These intervention programs have been used by service providers in a variety of settings including state vocational rehabilitation field offices, community rehabilitation programs, transition programs, and medical settings. The programs are briefly described in Table 4 and include Getting Employment Through Interview Training (GET-IT), Job Application Training, Rational Behavior Problem Solving, Relationship Skills for Career Enhancement, Behavior Management in Work Settings, Relaxation and Stress Management, Vocational Coping Training, and Following Through on the

Development of New Behavior Habits.

Table 4. Intervention Programs to Help Prepare Customers for Employment and the World of Work

Strategy	Description
Getting Employment Through Interview Training (GET-IT)	Getting Employment Through Interview Training teaches desirable social and self-presentation skills essential for successful job interviewing. Target behaviors are described, demonstrated, and practiced, using videotaped modeling and role-playing strategies.
Job Application Training (JAT)	Job Application Training is designed to prepare persons with disabilities to present themself in an effective manner on a job application.
Rational Behavior Problem Solving (RBPS)	Rational Behavior Problem Solving teaches participants to restructure self-defeating response patterns, to develop more effective behavioral routines, and to formulate and implement self-directed behavior programs.
Relationship Skills (RS)	Relationship Skills addresses four topics: relaxation, understanding others, assertiveness, and managing conflict. The exercises and activities focus on career and employment relevance and applications.
Behavior Management in Work Settings (BMWS)	Behavior Management in Work Settings is organized around the following six tasks important to a client's eventual work success: accepting the work role, being a productive worker, monitoring one's own work/work needs, responding satisfactorily to change, accepting supervision, working with co-workers.
Relaxation and Stress Management Training (RSM)	Relaxation and Stress Management Training uses taped exercises to develop the relaxation response and teaches participants to use the relaxation response as a self-management technique. The program emphasizes both positive coping skills and the reduction of excessive negative emotions.
Vocational Coping Training (VCT)	Vocational Coping Training helps participants learn how to solve on-the-job problems and cope with common supervisory demands.
Following Through (FT)	Following Through teaches participants four self-management skills: persistent practice, self-monitoring, assessment, and self-reinforcement. Participants develop their own practice programs incorporating the four self-management techniques.

Employer Development Strategies

A major contributing variable to a consumer's satisfying employment outcome is business and industry. The employer can be heavily influenced by interaction with the service provider. A large number of strategies have been developed over the years that focus on the interactions among employers, service providers, and consumers. The training packages and programs described in Table 5 are designed to increase the knowledge and skills of service providers in the area of job development, job placement, and overall marketing of rehabilitation to business and industry.

Table 5. Employer Development Strategies

Strategy	Description
RehabMark	RehabMark is a program designed to prepare rehabilitation placement practitioners to acquire the knowledge and skills to conduct employer development, develop long-term partnership relationships with employers, and place workers with disabilities in a wide range of employment settings.
Return to Work (RTW)	Return to Work is designed to help people cope with mid-career disabilities and facilitates an early re-entry to work.

Strategies to Promote Collaborative Efforts Among Community Entities Leading to Employment

The coordination and collaboration of various community services and resources to facilitate employment is viewed by some as the most pressing problem facing rehabilitation service providers (Bates, Bronkema, Ames, & Hess 1992; Thayer & Rice, 1990). At present there are very few strategies that are designed to enhance effective collaboration. Service providers working in rehabilitation, independent living, Department of Labor programs, and other agencies and organizations offer important services but are unable to coordinate services with other entities on behalf of the consumers that they serve. Attempts are currently underway to remedy this problem.

Table 6 describes a few of the available strategies designed to facilitate collaboration among consumers, service providers, employers, and other community resources that can affect employment.

Table 6. Strategies to Promote Collaborative Efforts Among Community Entities Leading to Employment

Strategy	Description
Developing a Collaborative Association	A manual presenting guidelines for developing collaboration among various community entities that affect employment.
Jobs Rally	Jobs Rally is a community happening that any member of any community-based human service program or institution can initiate and coordinate. An effective Jobs Rally may help communities become more responsive to the career development needs of people with severe disabilities.
All Aboard for Employment	All Aboard for Employment is a jobs fair approach that involves employers, service providers, and consumers.

Demonstrated Employment-Related Outcomes

A large number of studies have been conducted to evaluate the impact of the above strategies on a variety of employment-related variables (see end note to chapter). In all the studies, participants were clients of a state vocational rehabilitation agency located in the South. Bolton and Akridge (1995) conducted a meta-analysis of 15 studies that assessed 10 of the above strategies.

Participants of those studies generally possessed the following characteristics: (a) the majority were male, with an average age of 25; (b) 50 percent had completed high school; (c) a variety of disabilities was represented, with the majority having a primary or secondary disability of a psychiatric, behavioral, or intellectual nature; (d) the typical participant was severely or multiply handicapped and had a high failure rate in previous employment preparation programs; and (e) 95 percent were enrolled in a comprehensive medical and vocational rehabilitation center at the time of the studies.

Positive gains were experienced by clients in selection of vocational goals, acquisition of employment, and job retention and advancement. The following are examples of the findings for recipients of these strategies:

Variables related to the selection of an appropriate and suitable vocational goal

- Increased knowledge of self (e.g., interests, aptitudes, vocational personality factors, personal capacities, abilities);

- Increased knowledge of the work world (e.g., job requirements, training, the labor market);
- Increased career decisiveness;
- Increased confidence in vocational decision making; and
- Increased career maturity (readiness for vocational planning).

Variables related to the acquisition of employment

- Improved presentation of self on job application forms;
- Improved performance on a variety of job interview behaviors;
- Successful completion of specific occupational tasks;
- Increased tenure and completion rate of employment preparation programs; and
- Job acquisition.

Variables related to the retention of employment over time and advancement on the job

- Decrease in work-sabotaging emotions, beliefs, and actions;
- Improved interpersonal communication in simulated work situations;
- Increased ability to control anxiety and manage work-related stress; and
- Better vocational rehabilitation case status and/or employment status at follow-up.

Utility of Strategies and Practitioner Reaction

All the service delivery strategies described in the preceding sections were developed with one common goal: To help service providers assist their consumers to achieve satisfying employment and career outcomes. Each strategy has been developed with input from both service providers and consumers, and research demonstrates most to be effective in affecting selective variables related to choosing, getting, or keeping employment.

But, are they useable? Has their utility been demonstrated by actual use in the field? Ongoing feedback has been sought over the past several years to answer this question. Mail and telephone surveys have been conducted with users of the products to get their reaction to the utility, helpfulness, and benefits of the strategies.

The most recent survey was conducted from August, 1994 through April, 1996. A random sample (n=51) was selected from individuals who had received material and products during the 21-month period (N=760). A telephone survey was conducted with 2 to 3 individuals each month and feedback sought to determine (a) if recipients were using the product and how, (b) if they found the product helpful and how, (c) how satisfied they were with the product, and (d) the benefits they obtained from the product in relation to their own benefits and the impact they had on the lives of people with disabilities. The usefulness, helpfulness, satisfaction, benefits, and impact of these products are summarized in Table 7.

Table 7. Rating of Products

Utility of Strategies	Percent/ Rating
Usefulness	
Use the product in the delivery of services or in their daily living.	76
Share the products with others thus extending their use	41
Helpfulness	
Find the products helpful	99
Satisfaction	
Average satisfaction rating on a scale with 1 = very dissatisfied and 10 = very satisfied	8.4
Benefits to Service Delivery	
Products increased their knowledge and skills in the area of employment	80
Products improve the service delivery system and help them to more effectively and efficiently provide employment services	78
Impact on Lives of People With Disabilities	
Use of these products will benefit consumers in relation to employment	94
Use of the products increases consumer employment skills and knowledge of the work world	80
Consumers benefit from having access to a more improved service delivery system and more knowledgeable and skilled service providers	75

Conclusion

Satisfying employment and career outcomes for people with disabilities is the goal of service provision for the vocational rehabilitation system. This paper has introduced a number of service delivery strategies designed to assist in the achievement of that goal. Each was developed and tested in the field with a variety of positive employment-related outcomes. Service providers report using the strategies in a variety of settings, across the country, with positive results.

References

Akridge, R. L. (1993). The jobs rally. In R. Akridge, S. Brown, & L. Richards (Eds.), *Proceedings of the First National Forum on Peer Support Programs to Promote Independent Living and Career Development of People with Disabilities.* Fayetteville: University of Arkansas Rehabilitation Research and Training Center.

Bates, P. E., Bronkema, J., Ames, T., & Hess, C. (1992). State-level interagency planning models. In F. R. Rusch, L. DeStefano, J. Chadsey-Rusch, L. A. Phelps, & E. Szymanski (Eds.), *Transition from school to adult life: Models, linkages, and policy* (pp. 115-129). Sycamore, IL: Sycamore.

Bolton, B., & Akridge, R. (1995). A meta-analysis of skills training programs for rehabilitation clients. *Rehabilitation Counseling Bulletin, 38,* 262-273.

Burge, W. (1972). The counselor-evaluator relationship: Its nature and effects. *Vocational Evaluation and Work Adjustment Bulletin, 5,* 16-20.

Crites, J. O. (1978). *Career Maturity Inventory* (2nd ed.). Monterey, CA: McGraw-Hill.

Danley, K. S., Rogers, E. S., & Nevas, D. B. (1989). Psychiatric rehabilitation approach to vocational rehabilitation: Emerging directions. In M. D. Farkas & W. A. Anthony (Eds.), *Psychiatric rehabilitation programs: Putting theory into practice* (pp. 126-132). Baltimore: Johns Hopkins University Press.

Farley, R. C. (1992). Enhancing job readiness using an education and training approach. *Vocational Evaluation and Work Adjustment Bulletin, 25*(3), 85-88.

Farley, R. C., & Bolton, B. (1994). *Developing an employability* *assessment and planning program in rehabilitation and educational settings* (Instructor's Guide, Resource Manual, Participant's Workbook). Fayetteville: University of Arkansas Rehabilitation Research and Training Center.

Farley, R., Bolton, B., & Little, N. (1990). Employability assessment and planning in rehabilitation and educational settings. *Vocational Evaluation and Work Adjustment Bulletin, 23*(4), 117-123.

Farley, R. C., Bolton, B., & Taylor, J. K. (1991). The effects on vocational development of a strategy for empowering and involving consumers in the vocational evaluation process. *Vocational Evaluation and Work Adjustment Bulletin, 24*(3), 97-100.

Farley, R. C., Little, N., Bolton, B., & Chunn, J. (1991). *Employability assessment and planning in rehabilitation and educational settings* (Monograph). Fayetteville: University of Arkansas Rehabilitation Research and Training Center.

Genskow, J. (1970). Vocational evaluation and client responsibility. *Journal of Rehabilitation, 36*(3), 16-18.

Holland, J., Daiger, D., & Power, P. (1980). *My vocational situation.* Palo Alto: Consulting Psychologist.

Johnson, A. (1973). Client involvement in vocational evaluation: Some specifics. *Vocational Evaluation and Work Adjustment Bulletin, 6,* 19-21.

Kaskel, L. M. (1983). Client involvement in vocational evaluation planning: A program model. *Vocational Evaluation and Work Adjustment Bulletin, 16,* 123-125.

Louis Harris & Associates. (1986). *The ICD Survey of disabled Americans: Bringing disabled Americans into the mainstream.* New York: International Center for the Disabled.

National Council on Disability. (1986). *Toward independence.* Washington, DC: U.S. Government Printing Office.

Schriner, K. F., & Roessler, R. T. (1988). *Occupational choice strategy.* Fayetteville: University of Arkansas Rehabilitation Research and Training Center.

Spike, R. (1976). Client self-selection of tests and work samples in vocational evaluation. *Vocational Evaluation and Work Adjustment Bulletin, 9,* 34-38.

Super, D. (1990). A life-span, life-space approach to career development. In D. Brown, L. Brooks & Associates, (Eds.), *Career choice and development: Applying contemporary theories to practice* (pp. 197-261). San Francisco: Jossey-Bass.

Thayer, T. M., & Rice, B. D. (1990). *Vocational rehabilitation services in independent living centers.* Seventeenth Institute on Rehabilitation Issues. Fayetteville: University of Arkansas Rehabilitation Research and Training Center.

Urban Institute. (1975, June). *Report of the Comprehensive Service Needs Study.* (Contract #HEW 100-74-0309, p. 854). Washington, DC: Rehabilitation Services Administration.

Vash, C. L. (1984). Evaluation from the client's point of view. In A. S. Halpern & J. J. Fuhrer (Eds.), *Functional assessment in rehabilitation* (pp. 253-267). Baltimore: Paul Brookes.

Notes

Experimental Studies Demonstrating Employment-Related Outcomes

Akridge, R. L., Farley, R. C., & Rice, B. D. (1987). An empirical evaluation of the effects of peer counseling training on a sample of vocational rehabilitation facility clients. *Journal of Applied Rehabilitation Counseling, 18,* 20-24

Farley, R. C. (1984). Training in rational behavior problem-solving and employability enhancement of rehabilitation clients. *Rehabilitation Counseling Bulletin, 28*(2), 117-124.

Farley, R. C. (1985). The use of mental practice to improve vocational task performance. *Journal of Rehabilitation, 51*(1), 50-53.

Farley, R. C. (1987). Rational behavior problem-solving as a career development intervention for persons with disabilities. *Journal of Rational-Emotive Therapy, 5*(1), 32-42.

Farley, R. C. (1987). Self-management training and the maintenance of selected career-enhancing social skills: A pilot study. *Journal of Rehabilitation, 53*(2), 48-51.

Farley, R. C., & Akridge, R. L. (1986). Interpersonal relationship skills training and employability enhancement of rehabilitation clients. *Psychosocial Rehabilitation Journal, 10*(1), 57-60.

Farley, R. C., & Akridge, R. L. (1987). Training in relationship skills and rehabilitation clients' behavior in career settings. *Rehabilitation Counseling Bulletin, 30*(4),148-156.

Farley, R. C., & Akridge, R. L. (1987). The contribution of relaxation training to the acquisition of job interview skills: A pilot study. *Vocational Evaluation and Work Adjustment Bulletin, 20*(3), 115-118.

Farley, R. C., Bolton, B., & Parkerson, S. (1992). Effects of client involvement in assessment on vocational development. *Rehabilitation Counseling Bulletin, 35(3),* 146-153.

Farley, R. C., Bolton, B., & Taylor, J. K. (1993). The effects on vocational development of a strategy for empowering and involving consumers in the vocational evaluation process. *Vocational Evaluation and Work Adjustment Bulletin, 26,* 97-100.

Farley, R. C., & Hinman, S. (1986). Enhancing job interview and job retention behavior with relationship skills training. *Vocational Evaluation and Work Adjustment Bulletin, 19*(2), 55-60.

Farley, R. C., & Hinman, S. (1987, September). Enhancing the potential for employment of persons with disabilities: A comparison of two interventions. *Rehabilitation Counseling Bulletin,* 4-16.

Farley, R. C., & Hinman, S. (1988). Teaching rehabilitation clients effective job interview skills. *Vocational Evaluation and Work Adjustment Bulletin, 21*(4), 157-160.

Farley, R. C., Means, B. L., Akridge, R. L., & Rice, B. D. (1986). Psychoeducational training with high-risk rehabilitation clients in a field office setting: A pilot study. *Journal of Applied Rehabilitation Counseling, 17*(2), 25-28.

Farley, R. C., Schriner, K. F., & Roessler, R. T. (1988). The impact of the occupational choice strategy on the career development of rehabilitation clients. *Rehabilitation Psychology, 33*(2), 121-125.

Means, B. L. (1987, Fall). A pilot demonstration of the effect of value clarification on vocational training outcome. *Vocational Evaluation and Work Adjustment Bulletin,* 103-105.

Means, B. L., & Farley, R. C. (1991, Summer). A pilot demonstration of the effects of job application training. *Vocational Evaluation and Work Adjustment Bulletin,* 69-71.

Roessler, R. (1986). Training for vocational coping: A method for enhancing work establishment skills. *Rehabilitation Counseling Bulletin, 29*(4), 258-265.

Schriner, K., Greenwood, R., & Johnson, V. (1987). The evaluation of a skill-building program for rehabilitation placement practitioners. *Rehabilitation Education, 1,* 271-281.

Schriner, K., Roessler, R., & Farley, R. (1987). Evaluation of the occupational choice strategy: A pilot study. *Rehabilitation Counseling Bulletin, 31*(1), 67-71.

Author's Note: For further information contact Roy Farley, Arkansas Research and Training Center in Vocational Rehabilitation, University of Arkansas, P.O. Box 1358, Hot Springs, AR 71902. Phone: 501-624-4411, Fax: 501-624-3515.

Shared Responsibility: Job Search Practices From Consumer and Staff Perspectives

---

Sheila Lynch Fesko
and David Temelini
Children's Hospital, Boston
Rehabilitation Research and Training Center
on Promoting Employment

The goal of most rehabilitation services is to obtain employment opportunities for individuals with disabilities in jobs that offer good pay, benefits, opportunities for social relationships, and job satisfaction. This paper focuses on what consumers and staff tell us about which job search strategies are the most effective in producing these outcomes. It is organized into three major sections: (a) an overview of job search practices; (b) a national survey study of current practices and results; and (c) implications of the study's results for integrated employment job search practices.

Although there have been some increases in employment opportunities, the unemployment rate for individuals with disabilities continues to be at 67 percent (Louis Harris and Associates, 1995). Further, the majority of individuals with significant disabilities still receive services in segregated programs (McGaughey, Kiernan, McNally, Gilmore, & Keith, 1994). Traditionally, the process of rehabilitation staff assisting an individual in obtaining a job was referred to as "job placement" services. This terminology implies that the consumer is "put" into a job and that once "placed" he or she should remain in the job. This approach to securing employment frequently does not adequately reflect the consumer's role and responsibilities in this process or the ongoing nature of careers where individuals move to other jobs within the same company or across companies. To more accurately reflect the methods by which individuals with disabilities obtain employment, one needs to consider the process as a shared responsibility between the consumer and rehabilitation staff, with the goal of securing employment consistent with the individual's preferences and abilities.

Job Search Practices

The process of obtaining and maintaining employment can be looked at as occurring in four consecutive phases: planning and preparation for the job search, contacting employers, negotiating a positive hiring decision, and providing supports related to initial adjustment to a job (Hagner, Fesko, Cadigan, Kiernan, & Butterworth, 1996).

Planning and Preparation

The initial component of the job search process includes the selection of a career goal that emphasizes strengths and assets (Kokaska & Skolnik, 1986). MacDonald-Wilson, Mancuso, Danley, and Anthony (1989) emphasized the importance of the process of choosing an occupational goal to guide the job search process. Rehabilitation staff may assist the individual in identifying his/her occupational goal through the use of formal assessment strategies (Anderson, 1990) or informal discussions (Goldstein, 1987). Another form of planning, known as person-centered or "whole life planning" (Butterworth, Hagner, Heikinne, Faris, DeMello, & McDonough, 1993), is a group planning process in which an individual brings together people in his or her network of friends, family and professionals to develop a vision and goals for the future. This vision combined with the individual's expressed likes and dislikes are then incorporated into personal outcomes and job standards used to guide the job search.

Once the occupational goal is identified, a placement plan between the consumer and staff can identify responsibilities and desired outcomes. Hansen (1983) found that development of a placement plan reduced the amount of job search time and led to a more productive partnership between the job seeker and rehabilitation counselor. This planning process may also identify areas in which the consumer may need training to assist him/her in their job search. Job-seeking skills training that emphasizes training in areas such as resume development, completion of job applications, and job interviewing may be an appropriate support for the individuals as they begin their search (Anderson, 1968; Furman, Heller, Simon, & Kelly, 1979; McClure, 1972).

Contacting Employers

Contact with an employer, either by the individual with a disability or employment staff, is the next stage toward securing employment. Most individuals obtain employment through contacts with people they already know or referral through existing contacts (Granovetter, 1979; Silliker, 1993; Zadny & James, 1976). Two-thirds of individuals with disabilities surveyed by Harris poll (1995) reported that they had obtained their job through a personal contact. Many job developers use their established connections, especially personal relationships developed from previous placement efforts, to develop job leads (Greenwood & Johnson, 1987; Vandergoot, 1984). Other avenues for employer contact by rehabilitation staff include in-person, walk-in visits, telemarketing, joining or making presentations to business-oriented organizations, and hosting a community job fair or career day (Como & Hagner, 1986; Culver, Spencer, & Gliner, 1990; Greenwood & Johnson, 1987).

Employer advisory boards are often established to serve the dual purpose of providing entree into a wide array of community businesses and to focus an organization more solidly on the needs and perspectives of the business community (Housman & Smith, 1975; Martin, 1986; Teff, 1979). Nietupski, Murray, Chappelle, Straus, Steele, and Egli (1993) have successfully demonstrated an approach to job development called the "referral model," which enlists an advocate, a trusted and well-connected community member with ties to and credibility with a targeted company, as an intermediary in the job development process. The advocate meets initially with company managers to obtain information and gauge their receptivity, and agency contacts are designed in accordance with the advice of this advocate.

Negotiating a Hiring Decision

Once contact has been established, the rehabilitation staff and individual with a disability need to negotiate with the employer to obtain the job. Vandergoot (1984) has suggested the importance of researching a particular company to learn as much as possible in advance of employer negotiations. "Employer account" approaches (Research Utilization Laboratory, 1976) or an ongoing relationship with one employer provides the opportunities to learn a company's needs in detail (Culver, Spencer, & Gliner, 1990; Pati & Adkins, 1981; Walls, 1983). This knowledge of the employer's needs can be critical in communicating about how the candidate qualifications can match the employer's needs. Job restructuring and job creation can be used when there is not a clear match between the job requirements and the individual's abilities (Training and Research Institute for People with Disabilities, 1991). By learning the needs of an employer in detail, rehabilitation staff can assist an employer to develop a new job position that will use the individual's skills and that will benefit the employer.

Tax credits to offset salary and other concrete incentives for employers, such as on-the job training funds or a contract whereby a rehabilitation agency guarantees productivity, are sometimes employed to sway an employer's decision (Goldstein, 1987; Greenwood, Fletcher-Schriner, & Johnson, 1991; O'Bryant, 1984). While these strategies or "sweeteners" in the negotiation process are used by rehabilitation staff, Galloway (1982) found that employers did not feel they were necessary.

Job-Related Supports

It is important to provide continued support during the training and adjustment period once the individual begins to work. Some strategies for this initial training and adjustment period include:

- Identifying coworkers to serve as mentors to assist with stabilization on the job (e.g., Gardner, Chapman, Donaldson, & Jacobson, 1988)
- Teaching support strategies to company employees who can in turn support the employee, and reinforcing their efforts (e.g. Anderson, 1990)
- Teaching job-related social skills and self-management skills to the employee (e.g., Powell et al., 1991)
- Written service contracts between employers and rehabilitation agencies (e.g., Nelan, 1986)

The work adjustment model of Projects with Industry (Research Utilization Laboratory, 1976) represented an early effort to bring specialized supports and services into the business setting. Later, supported employment services were developed to support job training and on-the-job adjustment of individuals who traditionally were considered "not ready" for employment. Workplace-based services provided by rehabilitation staff include employee training (Gardner et al., 1988), development of job accommodations (Roberts, Zimbrick, Butterworth, & Hart, 1993), co-worker training (Fabian, Edelman, & Leedy, 1993), and business consultation (Fabian, Luecking, & Tilson, 1994).

National Survey of Job Search Practices

As discussed above, while there is much written about the variety of practices that can be used to assist individuals with disabilities obtain employment, there has been limited research in defining those practices that are most effective and result in positive employment outcomes. Nietupski, Verstegen, and Hamre-Nietupski (1992) have emphasized the need for further study to validate practices that have been reported anecdotally or based on individual successes.

As the foundation for further research and training activities, the Center on Promoting Employment: RRTC, at the Institute for Community Inclusion designed and implemented a national study of the job search practices used by community rehabilitation providers and Independent Living Centers to assist individuals with disabilities obtain jobs in the community.

Developing a better understanding of effective job search practices is critical if there is to be improvement in the unemployment rate for individuals with disabilities. By defining the practices that are more effective in helping individuals obtain jobs, rehabilitation staff can target their activities to those that are most likely to result in success. Beyond individual practices that are used in the job search, this study is considering what groups of practices occur together and are the basis for models of job search practices. Through this use of strategies, staff can target their activities to use their time effectively. Increased efficiency in job search activities will benefit the rehabilitation staff as well as the consumer, as there exist time constraints and other demands on rehabilitation staff persons.

In addition to considering what practices are effective in obtaining employment, it is also critical to investigate the relationship between practices and the employment outcomes of the jobs obtained. To help define the employment outcomes that were important to individuals with disabilities and their family members, four focus groups were convened prior to the development of the survey instrument. In addition to traditionally defined employment outcomes such as (a) compensation and hours worked, focus group participants emphasized the importance of (b) social relationships at work, (c) support of supervisors and co-workers, and (d) being treated fairly and with respect. All of these factors are important outcomes that define an individual's satisfaction with his/her job.

Method

Sampling. In order to collect the range of *job* search experiences conducted by community rehabilitation providers and Independent Living Centers, 20 states that represent diversity in population and supported employment rate (a proxy for the state's commitment to integrated employment) were selected as the basis for the sample. Variables used to select the sample states included the grouping of all 50 states by the following: a) by state population in 1990, using Census data (based on states above and below the median population), and b) supported employment rates per 100,000 of the state population (Virginia Commonwealth University RRTC on Supported Employment, 1991). States were ordered by regional location (east to west) within cells in order to obtain national representation. Numbers were assigned to each state; random numbers were selected until there were equal numbers of high and low integration states and representatives from high and low population states. See Table 1 for a description of selected states. Sampling design used for this study is described further in *Beyond the Workshop*, a study previously completed at the Institute for Community Inclusion (McGaughey et al., 1994).

Once the states were identified, mailing lists of community rehabilitation providers and Independent Living Centers were developed. The basis for the community rehabilitation provider list was a mailing list from the 1990 Beyond the Workshop study and was supplemented through the National Association Rehabilitation Facilities directory, directories of psychosocial club houses, and vocational services for individuals with sensory impairments. All lists were combined, duplications were eliminated, and address changes and updates were completed as necessary. The final list of community providers included a total of 4,000 organizations. One half of these providers were selected as sample members.

The directory of Independent Living Centers was used for the mailing list to these providers. All 202 Independent Living Centers in the 20 states were used as sample members. Previous research indicates that approximately 30 percent of Independent Living Centers provide assistance with *job* search activities (Means & Bolton, 1992).

Procedure

Since the perspective of staff and consumers was sought, a multi-level survey design was implemented. The first level consisted of a mailing to the executive directors of both community rehabilitation providers and Independent Living Centers. Each executive director was requested to complete a postcard consisting of four basic questions about program size and services and to provide the names of two staff persons with demonstrated ability to assist individuals with disabilities obtain employment.

At the second level, facility staff nominated by the executive directors received a staff survey and consumer consent form. Staff persons were asked to have the consumer sign the consent form, which explained the nature of the research and indicated the consumer's interest in participation. Staff were asked to identify an individual with mental retardation, mental illness, physical disability or sensory impairment that they had assisted in obtaining employment in the community and who remained in the position for at least 60 days. The time frame of 60 days was used for several reasons. First, it is consistent with vocational rehabilitation guidelines for stability on the job; second, it allowed time for the individual to gain a fuller appreciation of the job; and third, the individual would be in a better position to assess his/her satisfaction with the job. Staff then completed a survey that asked for basic demographic information about themselves and then to report on the employment outcomes for the individuals they assisted in obtaining employment. Staff were also given a list of job search practices and asked to identify if they had used these practices in the job search with this individual and if they had used them, how effective were they in helping to obtain the job.

At the third level, individuals who returned the consent form were mailed the consumer survey directly. These individuals were asked to complete the survey on their own or with the assistance of someone other than the rehabilitation staff person, so that the responses would clearly reflect two different perspectives. Certain individuals requested assistance from the Center in completing the survey; in those cases, staff from the Center completed the survey with the individual over the phone.

Follow-up at each level included a second mailing of all materials and phone calls to request participation. Nine hundred community rehabilitation providers were unable to participate, either because they were undeliverable (either because they have relocated or closed) or ineligible, since they did not provide job search assistance. From the remaining sample, 46 percent of executive directors nominated a staff member. 39

Table 1. Selected States by Cell Design

	High Population			Low Population		
	State	Population	1989 SE Rate	State	Population	1989 SE Rate
High Supported Employment Rate	**Massachusetts**	5,889,000	28.12	**Colorado**	3,301,000	53.34
	Maryland	4,622,000	27.31	**Connecticut**	3,233,000	119.13
	Minnesota	4,307,000	113.88	**Idaho**	1,003,000	39.12
	New York	17,909,000	27.71	**Maine**	1,207,000	28.63
	Virginia	6,015,000	42.67	**Montana**	805,000	33.82
	Washington	4,648,000	33.30	**New Hampshire**	1,085,000	58.24
	Wisconsin	4,877,000	32.13	**North Dakota**	667,000	47.48
				Oregon	2,767,000	72.25
				Rhode Island	993,000	69.28
				South Dakota	713,000	60.67
				Vermont	557,000	68.81
		48,267,000	mean 45.3		16,331,000	mean 58.3

	High Population			Low Population		
	State	Population	1988 SE Rate	State	Population	1988 SE Rate
Low Supported Employment Rate	Alabama	4,102,000	24.10	Alaska	524,000	6.73
	Arizona	3,489,000	29.14	**Arkansas**	2,395,000	9.60
	California	28,314,000	14.64	Delaware	660,000	26.95
	Florida	12,335,000	21.97	Hawaii	1,098,000	18.02
	Georgia	6,342,000	18.72	Iowa	2,834,000	7.10
	Illinois	11,614,000	11.78	Kansas	2,495,000	17.32
	Indiana	5,556,000	18.30	**Mississippi**	2,620,000	24.07
	Kentucky	3,727,000	25.41	**Nebraska**	1,602,000	8.07
	Louisiana	4,408,000	15.22	Nevada	1,054,000	2.96
	Michigan	9,240,000	9.17	New Mexico	1,507,000	.03*
	Missouri	5,141,000	4.78	**Oklahoma**	3,242,000	8.49
	New Jersey	7,721,000	4.27	Utah	1,690,000	16.46
	North Carolina	6,489,000	9.01	West Virginia	1,876,000	8.38
	Ohio	10,855,000	.33*	**Wyoming**	479,000	21.87
	Pennsylvania	12,001,000	3.88			
	South Carolina	3,470,000	11.39			
	Tennessee	4,895,000	15.56			
	Texas	16,841,000	11.24			
		156,540,000	**mean 12.3**		**24,076,000**	**mean 12.8**

States in bold represent states in the sample.
*Rates not available from VCU study; supported employment rate derived from 1986 Children's Hospital study.

percent of staff who were nominated completed a survey, and 62 percent of the consumers who signed the consent form ultimately completed the survey. Sixty-five percent of Independent Living Centers reported they did not provide assistance in obtaining employment and were ineligible to participate in the survey. Of the centers that were eligible, 67 percent of executive directors nominated a staff person. Fifty percent of nominated staff from Independent Living Centers completed the survey.

Instrumentation

The survey used in this national study was developed through multiple methods. Existing job placement literature was used to develop a list of 88 job search and support practices that were the basis of the survey of rehabilitation staff to identify what practices they used. The staff survey also requested demographic information about the staff and about the individual whom they assisted in obtaining employment. The consumer survey mirrored the staff survey on variables such as consumer and family involvement in job search, practices used in the job search, and description of the job obtained. In addition, consumers were asked to report their satisfaction with the job search support they received and how the job obtained matched their job preferences. The consumer survey also included the Job Satisfaction Questionnaire (Schalock, 1996), which is a 16-item questionnaire that evaluates a person's level of satisfaction in reference to four job dimensions: job content, nature of the work, equity, and organizational climate. This questionnaire was utilized to allow the individuals to assess their satisfaction with their job over multiple variables instead of a single overall rating.

Throughout all phases of the survey development, input was solicited from providers and consumers. An expert panel of national researchers in the employment and disability field reviewed the practices list and survey design to ensure that it reflected the scope of options used in helping individuals obtain employment. Once the survey was designed, it was piloted with community providers and consumers to assess its clarity and ease of completion. Feedback from the pilot subjects and expert panel were then incorporated into the final design.

Results

The following section reports the findings and results and is organized as follows. Part A consists of demographic information regarding both staff and consumer respondents to the survey, such as age, ethnicity, level of education, and length of time on the job. Part B reports on outcomes of the job search process such as consumer satisfaction with the job, consumer involvement in the job search, and length of the job search. Part C outlines the specific job search practices that were utilized. These three sections provide the complete profile of individual characteristics, employment outcomes, and job search models for all individuals who received assistance in their job search from community rehabilitation providers and Independent Living Centers. The final sections look at how these factors are represented within the four primary disability categories. In Part D job search outcomes based on specific disability are reported, and finally, Part E discusses particular job search practices by different disability groups.

A. Demographic Information of Staff and Consumer Respondents

Three hundred and sixty nine rehabilitation staff completed the survey and reported information about individuals they have assisted to secure employment in the community. The rehabilitation staff person was asked to report on the individual most recently assisted in obtaining employment who had been working for at least 60 days. Consumers for whom staff provided information were also asked to report their perspectives regarding the job search. One hundred and ninety one consumers completed this separate survey. Both the staff and consumer surveys requested information on job search practices, job description, and consumer/family involvement. Consumers were also asked to report on job satisfaction, job search support and how the obtained job equated with job preferences.

Of the staff respondents, two-thirds were female, 89 percent were Caucasian and 9 percent were African American. A large majority of these respondents, or 89 percent, had attended at least some college, with over half completing an undergraduate degree. On average, rehabilitation staff reported that they spent 15 hours a week on job search activities for individuals with disabilities. Demographic information as reported by staff respondents is summarized in Table 2.

With respect to consumer respondents, approximately 38 percent reported they were on their job for 2 to 6 months; an additional 25 percent were on the job for over one year. The majority of consumers, or 48 percent, for whom job search activities were reported were individuals with mental retardation.

Additionally, 29 percent of those reported were individuals with mental illness, 17 percent with physical disabilities, and 6 percent with sensory impairments. Eleven percent of consumers represented in the study had other disabilities, including substance abuse and learning disabilities. More than half of the consumer respondents were male, with 71 percent indicating that they were Caucasians, and 17 percent identified as African Americans. Table 3 summarizes demographic information as reported by consumers represented in the study.

Table 2. Staff Demographics*

Variable	Percentage
Age	
18 -30	23
31 - 40	27
41 - 50	27
>51	12
Sex	
Male	34
Female	66
Ethnicity	
Caucasian	85
African-American	9
Other	4
Highest Level of Education	
High School	11
Some College	26
Bachelor's Degree	40
Master's Degree	21
Length of Time on the Job	
<1 year	18
1-3 years	33
3-5 years	15
>5 years	34

* N = 369: as reported by staff

Table 3. Consumer Demographics

Variable	Percentage
Age*	
18 - 30	42
31 - 40	34
41 - 50	18
>51	3
Sex*	
Male	58
Female	39
Disability*	
Mental Retardation	48
Mental Illness	20
Physical Disability	15
Sensory Impairment	6
Other	11
Ethnicity*	
Caucasian	71
African-American	17
Other	5
Highest Level of Education**	
High School	83

* N = 369: as reported by staff

** N = 191: as reported by consumer

Consumers were asked to select the industry in which they worked from a list of six types or to specify an "other" type. While consumers reported obtaining jobs in a variety of industries, the majority worked in food service. See Table 4 for the distribution of types of industries represented.

Table 4. Types of Industries in Which Consumers Obtained Jobs

Industry	Percentage
Food Service	33.5
Manufacturing	12.5
Retail	10.8
Health Science	8.5
Education	3.4
Hospitality	3.4
Other	27.8

B. Outcomes of the Job Search Process

When asked to assess their satisfaction with the assistance they received in their job search, the majority of consumers reported being very satisfied. This satisfaction was not affected by their reported level of involvement in the job search.

Seventy-five percent of consumers reported receiving help from family and friends in their job search and in adjusting to the job. The most frequently cited types of support they received from family and friends were in ideas about the type of work they could do, suggestions where to look for a job, and providing transportation. Staff respondents reported that only 25 percent of consumers' families were involved in any aspect of the job search.

Eighty percent of consumers reportedly participated in a job interview prior to being hired. Eighty-five percent felt that they could say no to the job if they decided it was not a good job match, but 15 percent did not feel that they could decline a job if it was offered. The majority of consumers rated their performance on the job as very good and that they would like to stay on their current job for more than five years.

Consumers were asked to rate their satisfaction along a five-point scale in four areas: (a) Job Context, (b) Nature of the Work, (c) Equity, and (d) Organizational Climate. Questions about job context included satisfaction with supervision, co-worker relations, working conditions, compensation, and fringe benefits; questions about the nature of the work included satisfaction with the amount of recognition for doing good work, the difficulty of the work, and opportunities for advancement; questions regarding equity included satisfaction with the fairness of work load and fairness of income as compared to other employees; and finally, questions about organizational climate included satisfaction with the management and ethics, or how the company's philosophy was aligned with the consumer's values and conscience.

Consumers reported being very satisfied to satisfied overall with most areas on the job, but areas in which they were less satisfied were with pay, fringe benefits, and opportunities for advancement. There were not significant differences in rating of satisfaction between people who had been working for two months and those who had been working at the job for over one year. This finding would suggest that there was true job satisfaction instead of a "honeymoon effect" that people sometimes experience at the start of a job. Individuals who were more satisfied with the assistance they received in the job search process also reported greater satisfaction with their jobs. When the obtained job was a closer match to the factors the individual had identified as important during the job search, the individual again reported greater job satisfaction.

Fifty percent of consumers worked 25 hours or less a week. Thirty-seven percent of consumers worked between 30 and 40 hours a week. In terms of fringe benefits, 42 percent of consumers received paid vacation from the their job, 32 percent paid sick time and 29 percent received health insurance. Table 5 summarizes some other job information for individuals represented in the study.

Table 5. Consumer Job Information

Variable	Median	Range
Hours Worked	25	1-40
Wages	$5.00	$1.65-$21.25
Number of Hours on Job Search	18	1-350
Number of Weeks on Job Search	5	1-104

** N = 191; as reported by consumer

C. Job Search Practices

When rating job search practices on their use and effectiveness in assisting the individual obtain their job, staff reported positively on the use of counseling, resume development, informal discussion of vocational interests and goals, matching the consumer to the job, and making repeated contacts with companies. Practices that were used infrequently or viewed as not being effective by staff included public relations events for the agency, hosting a business advisory group, hosting a job fair, offering subminimum wage, or offering to have the consumer on the agency payroll instead of the employer payroll. While arranging a labor certificate to allow payment of less than minimum wage to the consumer was used infrequently, it is used and thought to be effective by about 10 percent of rehabilitation staff surveyed.

Support strategies that were used once the individual had obtained the job were also studied and staff found that it was effective to provide job related supports, make visits to the job site, provide on the job training, assess the employer's satisfaction with staff services, and meet with the consumer outside of the work place. Staff infrequently would provide equipment to help the individual do the job, complete disability awareness training for co-workers and help the consumer in disclosing his/her disability.

To better understand what practices typically occur together, a factor analysis was completed on the job search practices. Five different models or patterns of job search activities were found, which are described in Table 6. Staff who would use one practice listed in the pattern would typically use others from that group as well. These models provide a framework in looking at strategies that are used in conjunction with each other to achieve employment.

The models that have been identified include Generic Job Placement, Agency Marketing Approach, Individually Focused Job Placement, Networking Strategy, and Traditional Job Placement. The Generic Job Placement approach uses strategies that individuals with and without disabilities might use in their search such as reviewing the want ads and making a cold call contact to an employer. Some staff used the Agency Marketing approach where they would focus their time and energies on activities that promote the agency, but not necessarily a specific individual with whom they are working to help obtain a job. Using an employer advisory board or becoming a member of the Chamber of Commerce will increase the visibility of the agency and increase the likelihood of an employer thinking of the agency the next time he/she has a position to fill.

The Individually Focused approach uses strategies where the employment staff is identifying a job that meets the needs and abilities of a specific individual. With this approach, the staff person would work with the employer and individual to restructure the job or make accommodations to help improve the match for individual to the job.

The Networking Strategy involves using both the staff and consumer's personal and professional network to help obtain job leads. Establishing employer accounts (Research Utilization Laboratory, 1976), where the staff develops an ongoing relationship with an employer, is also utilized in developing a staff person network.

The Traditional Job Placement model is based on strategies that were more frequently utilized in sheltered employment situations. When this model is used, the staff makes a guarantee that the employer's production needs will be met or offers use of subminimum wage certificate.

D. Differences in Job Search Outcomes by Disability

While the previous section discussed outcomes with respect to disability groups as a whole, the data suggested certain differences when outcomes by disability categories were analyzed. There were significant differences in the length of the job search based on the disability of the individual served. The numbers of weeks it took to find a job for individuals who had mental illness or mental retardation was approximately half the amount of time for individuals with physical disabilities and sensory impairments. Jobs obtained for individuals with mental illness and mental retardation, however, had fewer hours worked and lower hourly wages than other disability groups.

Staff reported that the majority of consumers were somewhat to very involved in their job search. Individuals with physical impairments and mental illness were described as more actively involved in their job search than individuals with mental retardation. Table 7 summarizes certain differences among disability groups with respect to hours worked, wages and time spent on the job search.

Table 6. Factor Analysis for Grouping of Practices

JOB SEARCH PRACTICES	
Generic/Not Individually Focused	Review want ads Develop employer list through phone book, business directory Cold contact employer Research business and labor trends Host a job fair
Agency Marketing Approach	Host employer advisory board Participate in business-oriented community group (i.e., Chamber of Commerce) Have agency sponsored public relations events Job bank
Individually Focused Placement	Assess job match Restructure job for the individual Make general presentation to business about the abilities of individuals with disabilities Discuss job accommodation needs Create agency brochure
Networking Strategy	Canvass personal and professional networks for job leads Use consumers social and professional network Maintain job bank and exchange job information with other agencies Resume development Counseling Employer Account Strategy (i.e., frequent contact with company to develop relationship)
Traditional Job Placement Approach	Guarantee that employer production needs will be met Identify advocate in targeted company Offer contract where consumer is not on employer's payroll Offer subminimum wage Provide general assistance to employer on broad range of personnel issues

Table 7. Consumer Job Information by Disability*

Variable	Median	Range
Hours Worked		
Mental Retardation	25	5 - 40
Mental Illness	20	4 - 40
Physical Disabilities	37.5	7 - 40
Sensory Impairment	39	20 - 40
Consumer Wages		
Mental Retardation	$4.50	$1.63 - $8.91
Mental Illness	$5	$4.25 - $12
Physical Disabilities	$6.13	$3.50 - $18
Sensory Impairment	$6	$4.25 - $20
Number of Hours on Job Search		
Mental Retardation	22	1 - 207
Mental Illness	24	1 - 150
Sensory Impairment	44	3 - 200
Physical Disabilities	50	1.75 - 350
Number of Weeks on Job Search		
Mental Retardation	7.8	1 - 95
Mental Illness	7.5	1 - 52
Physical Disabilities	13.5	1 - 75
Sensory Impairment	21	1 - 104

* N = 369 as reported by staff

E. Job Search Practices by Disability

In addition to differences in employment outcomes such as wages and hours worked based on disability, there were differences in the job search strategies that were used based on the disability of the consumer. The agency marketing approach, which focused on promoting the agency through a public relations event, participation of staff in the Chamber of

Commerce, and use of an Employer Advisory Board, was found to be used more and judged to be more effective when working with individuals with sensory impairments than with individuals with mental retardation.

The networking strategy, where a staff person canvases his/her personal and professional network as well as the consumer's, was judged to be more effective when used with individuals with physical disabilities than for individuals with mental retardation. The remaining job search models (generic job placement, traditional job placement and individually focused job placement) were not found to be used or felt to be more effective with any of the identified disability categories. Additional analysis is being completed as a part of this research to consider what other factors influence the use of practices and how these factors vary based on the disability of the individual who is receiving job search assistance.

Most Effective Strategy

This national study lends insight into how rehabilitation staff assist individuals with disabilities obtain employment. In the ongoing effort to achieve quality outcomes that include good wages, hours, benefits, and job satisfaction, the networking approach (or "personal contact strategy"), as compared to other strategies, was an effective tool in bringing about quality employment outcomes. Networking typically resulted in a higher hourly wage and greater number of hours worked, as well as a shorter length of time spent on the job search. A networking strategy is commonly used by individuals without disabilities and is encouraged in the "generic" job placement literature (e.g., Bolles, 1994; Jackson, 1991) and can be effective at penetrating the "hidden job market" of unadvertised job openings (Jackson, 1991). By incorporating this strategy for people with disabilities, staff can use their time more efficiently, and consumers can take a more active role in the job search. Individuals with disabilities may need assistance, however, in developing networks and using the strategy since they traditionally have had smaller social and personal networks to draw upon for job leads (Wesolowski, 1981). Offering networking training and other activities that support the consumer's involvement in the job search will be important in helping people develop skills they can use in future job search efforts.

Implications

Since the findings from this study suggest that the use of a networking approach to the job search process will result in better employment outcomes for individuals with disabilities, it is important for rehabilitation staff to look to ways to incorporate more of this strategy into their job search activities. Rehabilitation providers who are assisting individuals with disabilities obtain jobs should look at developing and implementing the following activities to improve their services:

- Emphasize a networking approach that includes looking at the staff person's personal and professional network as well the consumer's.
- Train consumers on how to build and use their personal networks to help them in their job search.
- Work more closely with families and associates of the individual to build on existing relationships the families may have in the community.
- Build the personal networks of staff by talking with people in their own community about their work.
- Participate in professional organizations and business organizations as a way to learn more about different employers and to make contacts for later job search activities.
- Develop ongoing relationships with employers (i.e., employer account strategy) so that when they do have openings they are thinking of your organization.
- Maintain relationships with previous employers and monitor their satisfaction with your services. These positive relationships can be building blocks for future job leads.

One approach to use in developing the network of an individual with a disability is the use of a whole life planning approach (Butterworth et al., 1993). This planning approach brings together a group of people who know the consumer and can help him/her in visualizing his/her future. Once the consumer has a sense of the type of work he/she wants to do, this group can be a resource for ideas on how to achieve that goal. Through combining the networks of the participants, the consumer's options have expanded significantly.

Training consumers on how to develop and use their personal network in their job search should be a key component to any job seeking skills training. The Center on Promoting Employment RRTC has developed a training curriculum that can assist consumers to identify people they can talk to about possible job leads and strategies such as informational interviewing to find out more about an employer. An intervention research study is currently being implemented with this training to assess the impact of the training in helping individuals obtain jobs.

While consumers reported using family and friends for job leads and ideas, this group was not very involved from the staff perspective. Working more closely with families may assist the rehabilitation staff with leads, since the family or friends may have a better sense of their community and areas of potential employment opportunities. The rehabilitation staff cannot know the communities for every person with whom they work, but relying on the knowledge and affiliations that already exist for the family establishes a network to use for the job search.

Rehabilitation staff can also look at how they build their own network for job search activities. In addition to personal and professional relationships, staff should consider as potential employers those community businesses and resources that they use. Developing a comfortable relationship with one's dry cleaner or hair dresser establishes an avenue that can later be used by an appropriate consumer candidate who would meet the employment needs of that business. Talking casually with people about the type of work they do can lead to discussions of frustrations they have had in filling a position. All of these opportunities should be used in the job search.

While participation in business organizations such as the Chamber of Commerce was not viewed as being directly tied to job leads, it is an effective strategy in building one's professional network. Information from the business community will also assist in developing an understanding of the needs of employers, potential employment growth areas, and areas that are having limited hiring. All of this information can be critical in a successfully targeted job search.

The employer account strategy to job search (Research Utilization Laboratory, 1976) can help in maintaining relationships with previous employers and building relationships with new employers. If employers can view the rehabilitation organization and staff as a resource, they are more likely to contact the organization when they are first thinking about filling a position. This type of connection allows the rehabilitation staff to tap into the hidden market of jobs before they are advertised.

Additional analysis and study of the findings for the most effective job search strategies is underway, but rehabilitation staff can begin to implement these suggestions to improve the employment outcomes for individuals that they are assisting in the job search process. The networking strategy that has been shown to result in better employment outcomes is currently being used primarily with individuals with physical disabilities and needs to be expanded to address the needs of other disability groups. Once staff and consumers work jointly on the job search process and use their combined resources, there can begin to be increased opportunity and improved outcomes for all individuals. Since this is the goal of the rehabilitation process, it is time to take the necessary steps to achieve this goal.

References

Anderson, B. (1996). *Creating diversity: Organizing and sustaining workplaces that support employees with disabilities.* [illegible]: Center for Community, Inc.

Anderson, J. (1988). The disadvantaged job seek... – Through their efforts or ours? *Rehabilitation Record, 9*(3), 1-10.

Bolles, R.N. (1996). *The 1996 What Color is Your Parachute.* Berkeley, CA: Ten Speed Press.

Butterworth, J., Hagner, D., Heikkinen, B., Faris, S., DeMello, S., & McDonough, K. (1993). *Whole life planning: A guide for organizers and facilitators.* Boston, MA: Institute for Community Inclusion, Children's Hospital and University of Massachusetts.

[illegible], P., & Hagner, D. (1986). *Community work development: A marketing model.* Menomonie: University of Wisconsin, Materials Development Center.

Culver, J., Spencer, K., & Gliner, J. (1990). Prediction of supported employment placements by job developers. *Education and Training in Mental Retardation, 25*(3), 237-242.

Fabian, E., Edelman, A., & Leedy, M. (1993). Linking workers with severe disabilities to social supports in the workplace: Strategies for addressing the barriers. *Journal of Rehabilitation, 59,* 29-34.

Fabian, E., Luecking, R.G., & Tilson, G. (1994). *A working relationship: The job development specialist's guide to successful partnerships with business.* Baltimore: Brookes Publishing.

Furman, W., Geller, M., Simon, M., & Kelly, J. (1979). The use of a behavior rehearsal procedure for teaching job-interviewing skills to psychiatric patients. *Behavior Therapy, 10*, 157-167.

Galloway, C. (1982). *Employers as partners: A guide to negotiating jobs for people with disabilities.* Sonoma: Sonoma State University, California Institute on Human Services.

Gardner, J. F., Chapman, M. S., Donaldson, G., & Jacobson, S. G. (1988). *Toward supported employment.* Baltimore: Brookes Publishing.

Goldstein, A. (1987). Projects with industry: A resource for business and industry. *American Rehabilitation, 13*(1), 19.

Granovetter, M. (1979). Placement as bridging. In D. Vandergoot & J. Worrall (Eds.), *Placement in rehabilitation: A career development perspective* (pp. 83-101). Baltimore: University Park Press.

Greenwood, R., Fletcher-Schriner, K., Johnson, V. (1991). Employer concerns regarding workers with disabilities and the business-rehabilitation partnership: The PWI practitioners' perspective. *Journal of Rehabilitation, 57*(1), [illegible].

Greenwood, R., & Johnson, V. A. (1987). Employer perspectives on workers with disabilities. *Journal of Rehabilitation, 53*(3), 37-45.

Hagner, D., Fesko, S. L., Cadigan, M., Kiernan, W. E., & Butterworth, J. (1996). Securing employment: Job search and employer negotiation strategies in rehabilitation. In E. M. Szymanski & R. Parker (Eds.), *Work and disability: Issues and strategies for career counseling and job placement.* Austin, TX: Pro-Ed.

Hansen, M. (1985). Use of the job placement plan in vocational rehabilitation. *Dissertation Abstracts International,* [illegible]. (University Microfilms No. [illegible]).

[illegible], R., & Smith, D. (1977). Placement for persons with severe physical disabilities. *Rehabilitation Counseling Bulletin,* [illegible], [illegible].

Jackson, T. (1991). *Guerrilla tactics in the new job market.* New York: Doubleday.

Kokaska, C. J., & Skolnik, J. (1986). Employment suggestions from LD adults. *Academic Therapy, 21*(5), 573-577.

Louis Harris and Associates ([illegible]). *National Organization on Disability/Harris survey on employment of people with disabilities.* New York: Louis Harris and Associates.

MacDonald-Wilson, K., Mancuso, L., Danley, K., & Anthony, W. (1989). Supported employment for people with psychiatric disability. *Journal of Applied Rehabilitation Counseling, 20,* [illegible].

Martin, J. (1986). Identifying potential jobs. In F. Rusch (Ed.), *Competitive employment issues and strategies* (pp. [illegible]). Baltimore: Brookes Publishing.

McClure, D. (1972). Placement through improvement of clients' job seeking skills. *Journal of Applied Rehabilitation Counseling, 3,* [illegible].

McGaughey, M. J., Kiernan, W. E., McNally, L. C., Gilmore, D. S., & Keith, G. R. (1994). *Beyond the workshop: National perspectives on integrated employment.* Boston: Institute for Community Inclusion (UAP).

[illegible], R., & [illegible], R. ([illegible]). A national survey of employment services provided by independent living programs. *Journal of Rehabilitation,* [illegible].

[illegible], A. P. (1986). Targeting jobs in food services. *Journal of Job Placement,* [illegible].

Nietupski, J., Murray, J., Chappelle, S., Straathof, J., Steele, P., & Egli, S. ([illegible]). *A supported job development and placement model* ([illegible]). [illegible]. Iowa City: University of Iowa.

Nietupski, J., Verstegen, D., & Hamre-Nietupski, S. (1992). Incorporating sales and business practices into job development in supported employment. *Education and Training in Mental Retardation, 27,* [illegible].

O'Bryant, T. ([illegible]). Employer's perspective on placement. *American Rehabilitation,* [illegible].

Pati, G. C., & Adkins, J. I. (1981). *Managing and employing the handicapped: The untapped potential.* Lake Forest, IL: Brace Park.

Powell, T. H., Pancsofar, E. L., Steere, D. E., Butterworth, J., Itzkowitz, J.

S., & Rainforth, B. (1991). *Supported Employment.* White Plains, NY: Longman Publishing Co.

Research Utilization Laboratory. (1976). *Job placement and job development.* Chicago: Jewish Vocational Service.

Roberts, G., Zimbrick, K., Butterworth, J., & Hart, D. (1993). Job accommodation system. Boston: Training and Research Institute for People with Disabilities, Children's Hospital.

Schalock, R. L. (1996). Job Satisfaction Questionnaire. Hastings, NE: Hastings College.

Silliker, S. A. (1993). The role of social contacts in the successful job search. *Journal of Employment Counseling, 30* (1), 25-34.

Teff, D. R. (1979). Placement: The employer's view. *Rehabilitation Literature, 40*(1), 7-10.

Training and Research Institute for People with Disabilities. (1991, December). *Personal Network and Creative Supports: Promoting Employment Opportunities for People with Severe Physical and Cognitive Disabilities.* Children's Hospital, Boston: Author.

Vandergoot, D. (1984). Placement practices in vocational rehabilitation. *Journal of Applied Rehabilitation Counseling, 15*(3), 24-28.

Virginia Commonwealth University, Rehabilitation Research and Training Center on Supported Employment (1991). *A national analysis of supported employment implementation: Fiscal years 1986-1988.* Richmond, VA: Author.

Walls, D. A. (1983). Placement: Rehabilitation's assets to industry. *Journal of Applied Rehabilitation Counseling, 14*(2), 47-49.

Wesolowski, M. D. (1981). Self-directed job placement in rehabilitation: A comparative review. *Rehabilitation Counseling Bulletin, 25*(2), 80-89.

Zadny, J., & James, L. (1976). Placement practices in rehabilitation: A career development perspective. Baltimore: University Park Press.

Author's Note: For further information contact Sheila Lynch Fesko, Research and Training Center on Promoting Employment, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Phone: 617-355-6271, Fax: 617-355-7940, TDD: 617-355-6956, E-mail: Fesko@a1.tch.harvard.edu

Strategies For Increasing Rural Employment

Nancy L. Arnold, Brad Bernier,
and Tom Seekins
University of Montana
Rehabilitation Research and Training Center
on Rural Rehabilitation Services

Employment and transportation are two of the biggest problems faced by people with disabilities who live in rural areas. The Research and Training Center on Rural Rehabilitation Services is developing solutions for employment and transportation problems that are uniquely appropriate for rural areas. This paper presents two effective strategies for addressing these issues: Self-Employment and the Supported Volunteer Rural Transportation Program (SVRT). Entrepreneurial approaches, such as self-employment, are often used in rural areas and by people with disabilities. Self-employment is not unusual in rural areas and is one way rural residents, especially rural residents with disabilities, can be employed and continue to live in a rural area. Findings from research on a Supported Volunteer Rural Transportation Program indicate that SVRT programs can be an effective way of providing rides to people with disabilities who cannot drive and who live in communities with limited public transportation.

Rural America

Rural America is a diverse and changing place. Small-town America, the family farm, and the frontier West are images that have long formed the foundation of the rural American dream. Basic ingrained rural values and visions of open spaces, picturesque rolling hills, rich farmsteads, patchwork waves of grain, and majestic mountains are alive and romanticized in our culture. Yet, these popular images mask the reality that rural America is an extremely significant, diverse, and complex part of our society, with problems and needs that are extensive and largely misunderstood.

The U.S. Bureau of the Census estimates that more than 66 million Americans, or about 27 percent of the population, live in a rural environment. Although this segment of Americans is approximately equal in size to the country's central city population, its visibility to policy makers is much less salient, because it is dispersed across more than 75 percent of the landscape. Yet, there is significant evidence that rural Americans experience social, health, economic, and educational disadvantages that are equal to or greater than their central city counterparts (Norton & McManus, 1989; Seekins, 1992). In fact, the highest rates of poverty in this country are found in rural areas, where more than 14 million people live below the poverty line (Rojewski, 1992).

When rural or nonmetropolitan sectors are disaggregated from the rest of the country, the most striking characteristic is not how similar these sectors are, but the diversity that prevails in rural America (Blakely & Bradshaw, 1981; Cordes, 1989). For example, the U.S. Department of Agriculture classifies six types of nonmetropolitan counties in relation to their primary economic base: agriculture; mining, oil, and energy; specialized government functions; persistent poverty; federal lands; and destination retirement.

While farm or ranch living once accounted for a substantial portion of rural residents (more than 60 percent in 1920), recent estimates indicate that fewer than 10 percent of the rural population lived on farms or ranches in the late 1980s (U.S. Bureau of the Census, 1988). Contrary to the popular myth that cowboys and farmers are the backbones of our rural society, the majority (56%) of the rural labor force over age 15 work in service, financial, and wholesale and retail trade industries (Seekins, 1992; U.S. Bureau of the Census, 1988). Interestingly, off-farm employment is the primary source of income for the majority (53%) of families living on farmsteads. Thus, when we cast aside much of the romanticism and myth about rural Americans, we find a population that seems invisible to modern, urban American society.

Americans living in rural areas have generally lacked equal access to important resources and the ability to purchase needed services (Leland & Schneider, 1982; Omohundro, Schneider, Marr & Grannemann, 1983; Page, 1989; Richards, Frieden, Gerken, & Voorkamp, 1984; Swanson, 1990). While conventional wisdom assumes that it is less expensive to live in rural areas, the fact is that rural residents spend significantly more of their personal family income on living expenses than do urban dwellers (Seekins, 1992). For example, in 1988 urban residents spent about 90 percent of their average family income of $29,141 on living expenses (e.g., food, housing, apparel, transportation, health care, insurance), while rural residents spent 97% of their $22,132 average family income on living expenses. Thus, urban residents generally have four times the discretionary income of their rural counterparts.

Concern for equity and efficiency is at the heart of many of the problems identified by rural Americans (DeFriese & Ricketts, 1989). Researchers and rural advocates consistently marshal evidence that rural populations receive disproportionately less of society's resources to address problems that often are greater than those experienced in urban areas. In general, rural areas have a more limited range of services, and rural residents must use more informal and less specialized services, travel longer and farther, use a higher percentage of their income to pay for services, and have available to them services that are not as high quality as are available to their urban counterparts (Rowland & Lyons, 1989). Cordes (1989) points out that urban per capita expenditures for health and social service programs, training, and employment are twice as great as in rural areas, despite the fact that a significantly larger proportion of economically disadvantaged people, such as those receiving SSI and food stamp payments, live in rural areas.

Employment

The nonmetropolitan economy continues to grow more slowly than expected in spite of favorable economic factors in rural areas (Parker, 1991). Since 1986, the nonmetropolitan general population unemployment rate has been higher than metropolitan unemployment rate (Hagen, 1992; 1991). This slow growth and high unemployment are due to many factors. Contributing factors include variations in industrial composition, regional factors, the cost of labor, education, demographic composition, macro-level economic characteristics, a distinct rural culture, and the "rural factor," which is a composite of low population densities, small size, and distance from metro business and finance centers (Parker, 1991).

Additionally, recent policy changes have contributed to high unemployment, fewer job opportunities, a decrease in rural family income, and a greater increase in poverty rates in rural areas (Fitz & Christenson, 1991). Furthermore, there are few good jobs in rural areas (Tickamyer &

Duncan, 1991), and for the jobs that are available in rural areas (good or not), there are more people to fill them than there are available jobs (Tickamyer & Duncan, 1991).

Transportation

Employment, individual residences, shopping, and services generally are more dispersed than in urban areas because of the geographic nature of rural areas (Walden, 1982). A U.S. Department of Agriculture, Office of Transportation report states that "transportation...is clearly considered vital to rural America...because the transportation system provides for direct and immediate access to basic commodities, as well as access to jobs and services often located tens, if not hundreds, of miles away" (Beaver, McWilliams, & Stommes, 1989, p. 2).

The passenger car is the predominant mode of personal transportation. Public policies generally have encouraged the auto to become dominant through gas pricing policies, funding of highway networks, and expanding and improving road and street systems while allowing other transportation modes, such as rail, public transit, and intercity buses to deteriorate (Saltzman & Newlin, 1981). Bus service has declined for more than 30 years and since 1982, following deregulation of the intercity bus industry, a higher percentage of bus service loss occurred in communities of 10,000 or less (Beaver, McWilliams, & Stommes, 1989). At a conference on Rural Development Strategies, Nebraska's Governor Kay Orr stated that "A bushel of corn has more travel options than the farmer who grew it" (Stommes, 1988, p. 2). He was commenting on the fact that greater attention is paid to truck, rail, and highway infrastructure transportation issues than is paid to passenger issues (Beaver, McWilliams, & Stommes, 1989; Stommes, 1988; Weatherby, 1991).

Disability and Rehabilitation in Rural America

Disability and rehabilitation are a significant though often overlooked part of the complex rural American situation. Various researchers (Coward & Cutler, 1989; DeFriese & Ricketts, 1989; Norton & McManus, 1989) point out that rural Americans account for a greater proportion of chronic disease and disability. Given a rural population base of about 66 million persons, based on the 20 percent prevalence rate of Mathematica Policy Research, Inc. (1983), it is likely that 13.2 million rural residents have at least one chronic or permanent impairment. Further, use of LaPlante's

(1988) reported 14.1 percent rate of activity limitation due to chronic conditions would lead to an estimate of 9.6 million rural residents who face limitations in their daily activities.

Prevalence rates are a composite percentage made up of rural and urban rates. Therefore, because many chronic conditions are reported at significantly higher rates for nonmetropolitan residents (Norton & McManus, 1989), these estimates for the rural population with disabilities may be underestimated. There may be as many as 11 million Americans with disabilities.

Barriers in Rural Communities

Although there is a greater proportion of rural than urban residents with disease and disability, rural areas have fewer services or resources available to residents with disabilities (Coward & Cutler, 1989; DeVore & Ricketts, 1989; Norton & McManus, 1989). One such service provided in rural areas is vocational rehabilitation.

Many barriers have been cited as problems for providing vocational rehabilitation services in rural areas. These barriers include the economic climate; educational and employment opportunities; geography and distance; the availability of health care; the lack of public transportation; and the urban orientation of the rehabilitation system (Bitter, 1972; Clifton, 1989; Ciardiello, Schneider, Mark, & [illegible], 1983; Rogovsky, 1992). Recently, the Research and Training Center on Rural Rehabilitation (RTC: Rural) has focused on the areas of employment and transportation.

Employment

The economic climate and educational and employment opportunities available in rural areas directly affect availability of jobs. Adults with work disabilities who live in nonmetropolitan areas of the United States are less likely to be in the workforce, more likely to be unemployed, and are likely to earn less and have a smaller disposable income than their urban counterparts (Seekins, 1992).

Lack of Transportation

Lack of transportation is one of the most frequently reported problems facing rehabilitation providers in rural areas (Arnold, 1996; Kidder, 1989; Novak, Zhu, & Strickland, 1992; Page, 1989; Turcotte-Gonzalez, 1989). Lam, Chan, Parker, and Carter (1987) also report that unemployed respondents in their survey of rural Wisconsin Division of Vocational

Rehabilitation consumers listed transportation as one of their two main problems. Findings from a state study of public transportation in Iowa report that many senior citizens and people with disabilities are institutionalized because public transportation services are not available. Policy planners suggested that, in the long run, it would be more economical to provide transportation so these individuals could remain independent than to continue institutionalization (Reeve, McWilliams, & Stommes, 1989).

Self-Employment as a Solution

While various rural economic development strategies are debated (Miller, 1987), entrepreneurial approaches including self-employment are advocated as an option of particular utility in rural areas (Malecki, 1988). The U.S. Bureau of the Census (Kraus & Stoddard, 1991) reports that people who report a work-related disability are more likely to be self-employed (12%) than the general population (8%). Although self-employment is used as a vocational rehabilitation outcome at a higher rate in rural states than in urban states (Arnold, Seekins, & Ravesloot, 1995), it accounts for no more than 2.6 percent of employment outcomes nationally.

Research Findings

The RTC: Rural undertook a series of studies on the use of self-employment as a Vocational Rehabilitation employment outcome in order to understand the use of self-employment as an outcome by vocational rehabilitation systems. The following information highlights four salient findings from these studies (Arnold & Seekins, 1994; Arnold, Seekins, & Ravesloot, 1995; Ravesloot & Seekins, 1996).

First, Rural Vocational Rehabilitation counselors reported averaging more self-employment outcomes during their career than did urban counselors (17.7 vs. 3.9 outcomes), although they had been counselors the same number of years (an average of 11 years).

Second, a common criticism of self-employment is that the businesses consumers want to start are not practical and are hobby oriented such as leather worker, taxidermist, or potter. Analyses showed, however, that the businesses people start represent a wide range of mainstream businesses including piano refinishing, chiropractor, autobody repair, boat maker, contractor, wood shaker, used clothing store owner, accountant, restaurant, child care provider, welder, dog groomer, counselor, real estate agent, or conditioner repair, auctioneer, bicycle shop owner, and cleaning/maintenance.

Third, analysis of 41 state vocational rehabilitation policies and procedures governing the use of self-employment as an employment outcome revealed the following:

- Many policies contained incorrect data about the high rate of business failures. After eight years 80 percent of the small businesses were still operating ([illegible]).
- Eleven states had no written policies, procedures, or guidelines for use of self-employment as an outcome.
- Ten states required that the counselor eliminate all other viable rehabilitation options or salaried employment before considering self-employment as an outcome goal.
- Four states, not on order of selection, required that self-employment be reserved for people with severe disabilities.
- Eleven state policies included negative statements about self-employment.

The RTC: Rural's research on self-employment resulted in developing a comprehensive self-employment policy for vocational rehabilitation agencies. The model includes eight components. These components are to (a) assess a consumer's business potential; (b) develop a business idea, explore its feasibility, and conduct a market analysis; (c) assist the consumer with obtaining needed education or training; (d) obtain technical assistance; (e) develop a business plan; (f) determine the availability of and apply for resources from other sources; (g) conduct a review of the self-employment plan; and (h) monitor the business progress. Table 1 presents the eight components and indicates the state policies that addressed these components. Analysis of 41 state vocational rehabilitation general agency policies/procedures for self-employment revealed that only one state (Michigan) included all eight components.

Fourth, the use of self-employment as an employment outcome is affected by counselor attitudes towards self-employment. Counselor attitude is influenced by the counselor's past experience with self-employment, the counselor's office atmosphere towards self-employment, and the state policy, procedures, and guidelines governing the use of self-employment.

Table 1: Components of a Self-Employment Policy

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alabama		X		X	X				X
Alaska	X				X		X		X
Arizona	X		X	X		X	X	X	X
Arkansas	X			X	X		X	X	X
California	X	X		X	X		X	X	X
Delaware		X				X			X
Florida	X	X							X
Georgia	X	X	X			X			X
Idaho	X	X		X	X	X			X
Illinois	X	X				X	X	X	X
Indiana		X		X	X	X	X	X	X
Iowa	X	X		X	X	X			X
Kentucky	X	X	X		X	X		X	X
Maryland				X					X
Massachusetts	X	X	X	X	X	X		X	X
Michigan	X	X	X	X	X	X	X	X	X
Missouri	X	X	X	X	X	X			X
Nebraska	X	X	X	X	X	X			X
Nevada	X	X	X		X	X	X		X
New Hampshire	X	X		X		X			X
New Mexico	X	X	X	X	X				X
New York	X	X	X	X	X			X	X
North Carolina	X	X		X	X		X		X
North Dakota				X				X	X
Oklahoma	X						X		X
Oregon	X	X	X	X	X		X	X	X
Rhode Island	X			X		X			X
South Carolina	X	X	X				X	X	X
South Dakota	X	X		X	X	X			X
Texas	X	X			X	X	X		X
Vermont	X	X	X	X	X		X	X	X
Virginia	X	X			X	X	X	X	X
Washington	X	X		X	X				X
West Virginia	X	X	X	X		X	X	X	X
Wyoming	X	X	X	X	X	X	X	X	

Employment Solutions

The RTC: Rural is working to change vocational rehabilitation agency and counselor attitudes towards self-employment so they are more receptive and positive and help make the self-employment process clear and rewarding for both the counselor and the individual. These activities are expected to result in increased use of self-employment as a vocational rehabilitation employment outcome.

To achieve these ends, the RTC: Rural is first creating an awareness of the importance of self-employment for people with disabilities, vocational rehabilitation, and the community. For the person with a disability, self-employment is a legitimate vocational rehabilitation outcome. Contrary to conventional wisdom, small businesses often succeed ([illegible]; [illegible]) and many people with work disabilities report being self-employed ([illegible] & [illegible], [illegible]). Self-employment may be appropriate for a consumer when the individual has owned or operated a business in the past, the individual requires a work setting or schedule under his or her control, the competitive labor market is tight and placement unlikely, or the person has a business idea that is marketable. It also is a case where consumers can exercise additional choice.

The use of self-employment results in creating jobs and achieving employment outcomes where no other jobs may be available or appropriate for the individual. Vocational rehabilitation may find self-employment is one way of coping with today's job market, which is markedly different from the past. The job market is undergoing significant changes brought about by increases in global competition and new technologies. Among these changes is a shift toward more contingent employment ([illegible]), which includes temporary, part-time, sub-contracted, and self-employment.

For the community, self-employment creates an exchange of money, goods, and services and often attracts more money into the community. For example, a recent study of microbusinesses conducted by [illegible] and [illegible] ([illegible]) indicated that of the [illegible] microbusinesses in their study, [illegible] percent of the businesses created approximately [illegible] full- or part-time jobs. They also report that a "substantial percent seem to be growing and adding employees, thereby creating jobs in communities where jobs are desperately needed" (p. [illegible]).

Secondly, the RTC: Rural is developing consumer vocational rehabilitation

[illegible]

[illegible]

Transportation Solutions

[illegible]

[illegible]

Rural and Small City Transit
Programs and Agencies

Figure [illegible]: Rural and Small City Transit Programs and Agencies

[illegible]

[illegible]

[illegible]

[illegible]

BEST COPY AVAILABLE

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

Limitations:

- The potential for unexpected increases in trip demand could surpass budget allotments.
- The number of subsidized trips available to riders may be limited.
- There is potential for abuse unless an adequate monitoring program is in place.

Summary

Rural America is a diverse and changing place with between 11 and 13 million people with disabilities living in rural communities. Two pressing and related problems for these people are employment and transportation. The RTC: Rural is developing solutions for employment and transportation problems that are appropriate for the unique situations facing rural areas. The research indicates that self-employment (an entrepreneurial approach) is one way rural residents, especially rural residents with disabilities, can be employed and continue to live in a rural area. The RTC: Rural hopes to increase vocational rehabilitation's acceptance and use of self-employment by making the process more clear and comprehensive, thereby improving the entrepreneur's chances for success.

Because regular, reliable transportation is often unavailable in rural areas, the RTC: Rural developed and evaluated a Supported Volunteer Rural Transportation System. Research has found that an SVRT system can be an effective way of providing rides to people with disabilities who cannot drive and who live in communities with limited public transportation. The research also pointed out that liability issues are easily resolved through clearly defined policies and through careful discussions with insurance companies and the state's public service commission.

References

Aley, J. (1993). Debunking the failure fallacy. *Fortune, 128*(5), 21.

Arnold, N. (1996). *Profile of rural supported employment: Learning from our neighbors.* Missoula: Montana University Affiliated Rural Institute on Disabilities, Research and Training Center on Rural Rehabilitation Services, The University of Montana.

Arnold, N. L., & Seekins, T. (1994). Self-employment as a vocational rehabilitation employment closure: An example of state policies. *Journal of Disability Policy Studies, 5*(2), 65-80.

Arnold, N. L., Seekins, T., & Ravesloot, C. (1995). Self-employment as a vocational rehabilitation employment outcome in rural and urban areas. *Rehabilitation Counseling Bulletin, 39*(2), 94-105.

Bearse, M. A., McWilliams, R. T., & Stommes, E. S. (1989) *Transportation facts* (USDA Doc. A108.2 T687). Washington, DC: U.S. Department of Agriculture, Office of Transportation.

Belous, R. S. (1989). *The contingent economy: The growth of the temporary, part-time, and subcontracted workforce.* Washington, DC: National Planning Association.

Bitter, J. A. (1972). Some viable service delivery approaches in rural rehabilitation. *Rehabilitation Literature, 33,* 334-337.

Blakely, E., & Bradshaw, T. (1981). Implications of social and economic changes on rural areas. *Human Services in the Rural Environment, 6*(2), 11-21.

Clark, P., & Kays, A. J. (1995). *Enabling entrepreneurship: Microenterprise development in the United States. Baseline year report of the self-employment learning project.* Washington, DC: Aspen Institute.

Cordes, S. (1989). The changing rural environment and the relationship between health services and rural development. *Health Services Research, 23*(6), 757-784.

Coward, R. T., & Cutler, S. J. (1989). Informal and formal health care systems for the rural elderly. *Health Services Research, 23*(6), 785-806.

Dagata, E. M. (1992/93). Rural unemployment continues to rise in the third quarter of 1992. *Rural Conditions and Trends, 3*(4), 10-11.

DeFriese, G., & Ricketts, T. (1989). Primary health care in rural areas: An agenda for research. *Health Services Research, 23*(6), 931-974.

Flora, C. B., & Christenson, J. A. (1991). Critical times for rural America: The challenge for rural policy in the 1990s. In C. B. Flora & J. A. Christenson (Eds.), *Rural Policies for the 1990s* (pp. 1-7). Boulder, CO: Westview Press.

Kidder, A. (1989). Passenger transportation problems in rural areas. In W.R. Gillis (Ed.), *Profitability and mobility in rural America* (pp. 111-146). University Park, PA: The Pennsylvania State University Press.

Kraus, L. E., & Stoddard, S. (1991). *Chartbook on work disability in the United States.* Washington, DC: U.S. Department of Education, National Institute on Disability and Rehabilitation Research.

Lam, C., Chan, F., Parker, H., & Carter, H. (1987). Employment patterns and vocational and psychosocial service needs of rural rehabilitation clients in the United States. *International Journal of Rehabilitation Research, 10*(1), 69-92.

LaPlante, M. (1988). *Data on disability from the National Health Interview Survey, 1983-85: An InfoUse report.* Washington, DC: U.S. National Institute on Disability and Rehabilitation Research.

Leland, M., & Schneider, M. J. (1982). *Rural rehabilitation: A state of the art.* Fayetteville, AR: Arkansas Rehabilitation Research and Training Center, University of Arkansas.

Malecki, E. J. (1988). New firm startups: Key to rural growth. *Rural Development Perspectives, 4,* 18-23.

Mangelsdorf, M. (1993). The incredible shrinking failure rate: Start-up notes. *Inc., 15*(10), 58.

Mathematica Policy Research, Inc. (1984). *Digest of data on persons with disabilities.* Washington, DC: Congressional Research Service, Library of Congress.

Miller, J. P. (1985). Rethinking small business as the best way to create rural jobs. *Rural Development Perspectives, 1,* 9-12.

Norton, C., & McManus, M. (1989). Background tables on demographic characteristics, health status, and health services utilization. *Health Services Research, 23*(6), 725-756.

Nosek, M., Zhu, Y., & Howland, C. (1992). The evolution of independent living programs. *Rehabilitation Counseling Bulletin, 35*(3), 174-189.

Offner, R. B. (1989). Human resource development in rural rehabilitation services. In G. Fors (Ed.), *Meeting the rehabilitation needs of rural Americans.* Missoula: Montana University Affiliated Rural Institute on Disabilities, Research and Training Center on Rural Rehabilitation Services, The University of Montana.

[illegible], J., Schneider, M., Marr, J. & [illegible], B. (1983). A four county needs assessment of rural disabled people. *Journal of Rehabilitation, 49*(4), 19-24, 70.

Page, C. (1989). Rural rehabilitation: It's time now. In G. Foss (Ed.), *Meeting the rehabilitation needs of rural America.* Missoula: Montana University Affiliated Rural Institute on Disabilities, The Research and Training Center on Rural Rehabilitation Services, The University of Montana.

Parker, T. (1991). Nonmetro job growth lags its apparent potential. *Rural Development Perspectives, 7*(1), 15-19.

Ravesloot, C., & Seekins, T. (1996). Vocational rehabilitation counselors' attitude toward self-employment outcomes. *Rehabilitation Counseling Bulletin, 39*(3), 189-201.

Research and Training Center on Rural Rehabilitation Services. (1996). *Making transportation work for people with disabilities in rural America.* Missoula: Montana University Affiliated Rural Institute on Disabilities, Research and Training Center on Rural Rehabilitation Services, The University of Montana.

Richards, L., Frieden, L., Gerken, L., & [illegible] (1986). Independent living in rural America. *Proceedings of the International Conference on Rural Rehabilitation Technologies.* Grand Forks, ND: University of North Dakota.

Rojewski, J. (1992). Vocational rehabilitation in rural America: Challenges and opportunities. *American Rehabilitation, 18*(1), 39-44.

Rowland, D., & Lyons, B. (1989). Triple jeopardy: Rural, poor, and uninsured. *Health Services Research, 23*(6), 975-1004.

Saltzman, A., & Newlin, L. W. (1981). The availability of passenger transportation. In A. H. Hawley & S. M. Mazie (Eds.), *Nonmetropolitan America in transition* (pp. [illegible]). Chapel Hill: The University of North Carolina Press.

Seekins, T. (1992). *Rural and urban employment patterns: Self-employment as a metaphor for rural vocational rehabilitation.* Missoula: Montana University Affiliated Rural Institute on Disabilities, Research and Training Center on Rural Rehabilitation Services, The University of Montana.

Stommes, E. (1988). National conference develops rural transportation strategy. *Rural Development News, 12*(5).

Swanson, L. (1990). *Demographic background for TEF briefing.* Unpublished report. Washington, DC: Economic Research Service, U.S. Department of Agriculture.

Tickamyer, A. R., & Duncan, C. M. (1991). Work and poverty in rural America. In C. B. Flora & J. A. Christenson (Eds.), *Rural policies for the 1990s* (pp. 102-113). Boulder, CO: Westview Press.

Tonning-Gonzales, L. (1989). Rural independent living: Conquering the final frontier. In G. Foss (Ed.), *Meeting the rehabilitation needs of rural Americans* (pp. 3-6). Missoula: Montana University Affiliated Rural Institute on Disabilities, Research and Training Center on Rural Rehabilitation Services, The University of Montana.

U.S. Bureau of the Census. (1989). *Rural and rural farm population: 1988.* Washington, DC: U.S. Government Printing Office.

U.S. Department of Transportation. (1991). *Federal Transit Act,* P.L. 102-240.

Walden, M. L. (1985). *Evaluating resource allocation in personal transportation in rural areas: An overview for transportation planners* (Project Report). North Carolina: North Carolina State University.

Wardwell, R. C. (1991). Rural transportation. In C. B. Flora & J. A. Christenson (Eds.), *Rural policies for the 1990s* (pp. 209-221). Boulder, CO: Westview Press.

Author's Note: For further information contact Tom Seekins, Director of the Research and Training Center on Rural Rehabilitation Services, Rm. 52 Corbin Hall, University of Montana, Missoula, MT 59812. Phone: 406-243-5467 (v), 406-243-2350; FAX: 406-243-2349; E-mail: rural@selway.umt.edu

Community-Based Rehabilitation Programs: Achieving Sustainable Vocational and Employment Programs

---

Fredrick E. Menz, Charles C. Coker, Dale F. Thomas, Karl F. Botterbusch, and Daniel C. McAlees

University of Wisconsin-Stout
Rehabilitation Research and Training Center
on Improving Community-Based
Rehabilitation Programs

The need to improve and sustain quality rehabilitation available and accessible to persons with disabilities in communities across America is very clear. Changes taking place in American society, at large, will affect and shape the public vocational rehabilitation program throughout the next decades. Rehabilitation programs' services presently available will likely evolve to accommodate changing expectations of individuals, of family members, of employers for competitive workforces and expectations that communities have for their members, including people with disabilities. Rehabilitation agencies, community-based providers, and consumers must be prepared to embrace and positively address these changes. Quality and accessibility cannot be compromised as pressures to change are addressed in redevelopment of the public and community-based programs.

Changes are occurring because of dissatisfaction and frustration over access and quality of many services needed by individuals with disabilities, including dissatisfaction and frustration with access and quality of medical, social rehabilitation, education, public accommodations, and employment services. Whether in Atlanta or Coffee, in San Francisco or Bangor, individuals with disabilities are aware of the many barriers that exist to removed if economic self-sufficiency and community integration are to be real, achievable goals. They face barriers at the community level, regardless of where their rehabilitation might take place:

- Jobs and careers that are closed to people with disabilities because of social [illegible] and co-worker reluctance;
- Social service agencies that were designed for maintenance and care-taking and thereby function poorly for rehabilitation and personal achievement;
- Public service organizations that continue to provide minimum quality responses to disability needs even for those who are most aggressive in demanding their rights;
- Recreational and socialization opportunities that can rarely be accessed because of geographic isolation, limited or inaccessible transportation, physical and architectural barriers, and technological biases that promote a limited range of alternatives and human choices; and
- Unacceptable unemployment rates, levels of poverty, and growing dependence on public sources for the majority of people with severe disabilities.

Demands for change are expected to cause rehabilitation to better meet individual needs for economic self-sufficiency and community integration. In the past decade, the goals of rehabilitation have significantly expanded beyond "adapting individuals with disabilities to fit into employment roles" to "providing rehabilitation services that address their potential and individual employment and community goals." Rehabilitation available at the local community level will have to accommodate increased expectations that individuals with disabilities and family members have for these public programs.

The expectations of individuals with disabilities and many rehabilitation professionals are greater now than they have ever been before. Expectations are that rehabilitation, regardless of the source in which it may be offered, must increasingly focus on individual needs and make available a variety of quality alternatives that demonstrate important economic and community integration benefits. Demands for accessible, quality, and politically accountable rehabilitation will continue to steadily increase as the larger community debates on what are appropriate goals for rehabilitation, [illegible] what should take place with individuals during their rehabilitation, (c) where rehabilitation should be delivered, and (d) in whose hands should control of rehabilitation resources reside.

Change and Vocational Rehabilitation

The Rehabilitation Research and Training in Improving Community-Based Rehabilitation at the University of Wisconsin-Stout seeks models, strategies, and options that are effective for individuals with disabilities and rehabilitation needs and are demonstrably responsive to community settings. The information and criteria applied to identifying, designing, and disseminating community-based practices are germane to vocational and community integration outcomes.

This paper summarizes some significant findings from the Center's research that apply to practice with people with disabilities through community-based programs and offers some guidance to those who wish to develop or refine community-based programs. Events guiding change in rehabilitation that were discussed above. The remainder of the paper discusses the "program side" of building sustainable community-based vocational programs with a notable emphasis on rural settings.

Legislative changes, social expectations, emergence of community-based programs, definitions of community-based rehabilitation, rehabilitation provider response to needs for change, and significant barriers that shape programs are presented as a background for discussing research applicable to improving the success of community-based programs. Selected findings from research and demonstration projects conducted by the Center on community derived vocational programs are then reviewed in relation to creating sustainable community-based programs that address vocational, economic, job satisfaction, and community integration goals of people with various severe disabilities. These research results are examined in terms of developing models with which to guide practitioners and communities to select alternatives best for them. Finally, recommendations are offered on establishing community-based programs at these critical points in time (development, implementation, stabilization) and indicators are suggested for identifying quality community-based rehabilitation.

Community Based Rehabilitation

The 1992 Amendments replaced "rehabilitation facilities" with "community-based rehabilitation programs" as the community-level delivery entity. Subsection (4) provides justification for establishing quasi entities [illegible] [illegible] existing organizations to "community-based programs." [illegible] makes the most sweeping change, however, by shifting emphasis from "where services take place" to "what takes place in rehabilitation."

> The term "community rehabilitation program" means a **program that provides directly or facilitates the provision of vocational rehabilitation services to individuals with disabilities**, and that provides, singly or in combination, for an individual with a disability to enable the individual to maximize opportunities for employment, including career advancement. . . .*

These language changes are more than symbolic. [illegible] changes in language reflect a major conceptual shift away from "institutional" services or "programs" that are provided in community [illegible] settings. "Institutional" [illegible] "rehabilitation" were written out of the law. The impact of the "supported employment" services [illegible] rehabilitation in the community [illegible] began in earnest in 1987 [illegible] another significant shift in language from "what takes place in rehabilitation" to "what is obtained for individuals [illegible] employment and economic outcomes from public rehabilitation."

Second, the shift from "where services are provided" to "what takes place in rehabilitation" will substantially affect community programming. "Rehabilitation facilities" have historically provided evaluation, training, placement, and employment services [illegible] services referred by the public vocational rehabilitation program. Services purchased with federal dollars must be directed at specific outcomes identified in an individually developed rehabilitation plan [illegible] long-term vocational services. Thus, the changes shift the focus of rehabilitation services to providing processes that enable individuals to achieve both economic and independence goals within their own communities. Finally, the range of service options that may be acquired through community-based rehabilitation programs has expanded to include [illegible] that are directly applicable to or are supportive of consumer vocational and integration goals.

Practitioners and consumers will be challenged by the possibilities [illegible] community-based programs. [illegible]

---

*Emphasis added by author.

[illegible]

Community-Based Rehabilitation. [illegible]

Community-Based Rehabilitation Program. [illegible]

[illegible]

These definitions suggest that [illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

[illegible]

[illegible]
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

[illegible]

[illegible]

design, on barriers and solutions to establishing successful community-based employment programs, and examines suggested ideas for dealing with the continuing costs associated with disability and community participation.

Supported Employment and Severe Disability

Research on traumatic brain injury was conducted by Thomas under the Head Injury Re-entry (HIRe) program, a rural supported employment demonstration project (Thomas & Menz, 1993). This project was a multi-faceted effort using both research and field input in an effort to obtain a valid perspective of the issues and potential solutions to community-based rehabilitation for persons with head injuries. HIRe was developed for rural areas and was field-tested in Wisconsin and Minnesota. The components of HIRe included (a) assessment and planning (intake, neuropsychological evaluation and consultancy, vocational assessment, preparation of a supported employment plan) and (b) community-supported employment and follow-along (job placement; training in vocational and job getting and keeping skills; supported employment; coaching and support groups; and fading/transferring of coaching and coordination responsibilities).

Project HIRe gathered intense cross-sectional data on 27 individuals served during the three years through this Center and at other sites in Wisconsin (7) and Minnesota (10). The data include standard intake data; historical information on pre- and post-injury status; Vocational Assessment Profiles; employment and integration data; regular monitoring of on- and off-job support; measures of adaptation as perceived by consumers, their family, and employers; and anecdotal entries by project staff. These data were supplemented with documentation of how the HIRe model was implemented at each site, how it was adapted to individuals, and how unique resource and access problems in rural Wisconsin were attacked (and overcome). Both statistical and case studies were prepared to examine model delivery with successful and unsuccessful HIRe clients. Such composites were used to devise examples of syndromes (i.e., secondary behavioral, psychological, and physical results of injury) and consequences of those syndromes during planned interventions and for maintaining employment and integration.

Twenty-seven persons were served in some capacity by Project HIRe. Of these, 19 were male and 8 were female, with an average age at the referral of 25, although there was considerable variation in age (18 to 51).

All persons in the sample were white, a current cultural phenomena of the Midwest rural areas. Marital status for most persons remained approximately the same, from before the injury to the time of entry into the project. The majority of all persons (55.5%) had completed high school or a general education equivalency diploma prior to their injury, while the remainder completed their GED or high school diploma after their injury; 14.8 percent had been involved in vocational and technical training, and two individuals attended college after their injury.

Nature of Head Injuries

The majority of persons studied (78%) were considered to have a closed head injury. Seven out of 13 also had a skull fracture as a result of the injury, suggesting the relative severity of the blow to the head that was sustained. Also, the majority of the injuries were sustained in motor vehicle accidents, with one-third of all known cases to be related to alcohol use. The period of time in a coma and the period of post-traumatic amnesia (indicators of the severity of the head injury) were typically obtained from the significant others and may not be as accurate as that from hospital records. Family members reported an average coma length of 32 days and the average number of days in amnesia at 16 (both with wide variations).

Severity of Disability

At all three sites involved in Project HIRe (including the original pilot site), persons with relatively minor traumatic brain injury as well as severe and catastrophic levels of brain injury were referred to programs. By and large, HIRe subjects were classified as having significant and severe disabilities based on the nature of the initial brain injuries and the types of problems exhibited following injury. Without support of job coaches, case managers, and client advocates, these people would probably not have had the opportunity to access competitive employment in community-based situations.

Functional Problems Identified at Referral

Data in six functional problem areas were gathered from family members at the time of referral.

Physical. Balance was the most common physical problem, followed by difficulties with walking and lifting, yet none of the subjects were reported to have spinal cord injuries.

Sensory. Seventy-eight percent reported difficulty with coordination, over a third reported having seizures, and the majority had a history of seizures, but all of them were either well controlled or in remission at the time of placement in competitive employment. Well-controlled seizures were defined as being relatively low incidence.

Cognitive. Cognitive problems included memory difficulties for nearly 86 percent. Difficulties in visual spatial skills and problems in defining and carrying out goals were reported by nearly three quarters.

Emotional and Behavioral. Emotional and behavioral problems were also common, with three quarters of the persons reporting feelings of frustration, 60 percent reporting depression, over half of them reporting anxiety and anger, and 17.4 percent reporting problems with alcohol or chemical abuse. It is typical among these persons with severe head injury to exhibit frustration, depression, and anxiety. Few subjects indicated difficulty with any of the psychotic symptoms such as paranoid behavior or hallucinations.

Social Adjustment. Social adjustment problems were also commonly reported. Approximately half of all persons were reported to have difficulties with poor judgment and awkwardness in social situations. Approximately a third of the population were described as being irritable, impulsive, and feeling as though they were being rejected by others. Only two of the subjects were found to be aggressive and assaultive toward others.

Mobility. Most did not have significant mobility limitations (e.g., 3.7% required a wheel chair; 11.1% required crutches, walkers or cane). While most persons walked independently, many (43.5%) reported problems walking due to dizziness, fatigue, and coordination problems.

Employment Outcomes

Table 1 summarizes outcomes from the HIRe project at its two demonstration sites. Three individuals were served in supported employment at the Wisconsin site. Community-based employment program funding in the area served by this agency was based on a slot allocation, and only three slots were allocated for survivors of traumatic brain injury. The persons served had disabilities so severe that they required additional job coach and support services that went beyond what is traditionally provided to supported employment clients in this facility. It was typical for the employment training specialist to work intensively with one individual and then to fade to a maintenance job coach while working with another referral. However, because of the psychological problems encountered by clients, the employment training specialist often needed to spend additional time with a client who was faded into maintenance status if various aspects of the job changed.

Table 1. Employment Benefits Achieved at Two HIRe Replication Sites[a]

Employment Variables	Total Sample
Number of Workers (3 from WI; 14 from MN)	13
Overall Employment Pattern and Benefits for Consumers	2
Average number of jobs	17.6
Average weeks of support	17.2
Average hours support per week[b]	11.5
On-Job (e.g., job coaching)	9.3
Off-Job (e.g., counseling)	1.8
Indirect (e.g., paper work)	339
Total weeks worked	377
Total possible weeks worked	89.9
Percent possible weeks worked	
Employment Benefits From Last Job for Consumers	$3.05
Average hourly rate	21
Average hours per week	17
Average weeks worked	
Wages Compared to Minimum Wage[c]	7
Number of workers above	5
Number at or below	
Number of Persons Returned to Competitive Employment Without Supports	2

[a] Persons placed during model development at the pilot site were not included in this table.

[b] Mean hours for on, off, and indirect computed only for those with reported usage.

[c] Minimum wage rates: 1989 - $3.65; 1990 - $3.80.

Fourteen persons were served in supported employment at the Minnesota site, which was able to work with a larger number due to having an existing supported employment program in place that was serving persons with traumatic brain injury and was thus able to implement the

HIRe model. There was wide inter- and intra-person variability in need for on- and off-job support as documented in individual support profiles. Individual, cyclic changes in needs yielded atypical profiles of support and the fading of supports possible with clients having cognitive disabilities could not be anticipated.

Employment. Employability appears to be a function of not only the severity of disabilities but the stability of the disabilities as well. It was not necessarily the degree of physical disablement that precluded people from working as much as factors such as insight into the nature of their problems, interpersonal work problems, and general social adaptive behavior difficulties. People less predictable in their behavior tended to be those who had the most problems accessing and keeping employment. Persons with wide mood swings and styles of interactions with persons that seemed to "catch their employers off guard" were more likely to exhibit work-related problems and were subsequently terminated because of these behaviors.

Earnings. Both field sites reported placing people on jobs that were below the minimum wage. The Wisconsin site placed one person below minimum wage, and the Minnesota program placed four below minimum wage. Individuals who were placed at below the minimum wage tended to be individuals who were in training or apprenticeship programs in a transitional work site. The difficulties encountered in placing people at a competitive wage rate were related in part to the nature and severity of the disabilities of these individuals.

Stability of Supported Employment. Project dollars were available to the field sites to partially support an employment training specialist. The employment specialist functioned in much the same manner at both sites, providing much off-job as well as on-job support. Once funding through HIRe ran out, on-site support was no longer able to be carried by either provider, and retention of individuals in supported employment drastically declined.

Community-Developed Approaches to Community-Based Employment

A second community-based research study entitled the Diffusion Network Project (DNP) examined the evolution and consequences of eleven community-based models that address both employment (economic) and non-employment (e.g., social integration, housing) goals (Botterbusch

& Menz, 1995a, 1995b). This project sought evidence of how the dynamics of model, individual, and community combine to contribute to successful and less successful practices; that is, provide insight into how rehabilitation delivery comes about through the rehabilitation facility and how it in turn is linked into the employment sector and the social environment of the individual's natural community. The project findings suggest how models are devised, how well they work, and what (including consumer participation) makes them achieve one or more desired goals.

Development of Models

The Diffusion Network Project helped community-based rehabilitation programs provide employment and independent living services to consumers with severe disabilities. The basic philosophy behind this demonstration project was that community-based program staff and consumers could design, implement, and successfully operate programs that meet the needs of their communities. The extensive materials available on supported employment practices were used to design variations of supported employment models for people with severe psychiatric or traumatic brain injuries.

In exchange for technical assistance, the programs monitored the effectiveness and efficiency of services to consumers with severe disabilities under each local model. The overall method of the project was to have organizations and consumers develop programs for their locale, consumers, and economies and to have Diffusion Network Project staff and others provide technical assistance and training as needed by each organization.

The eleven local programs had contacts with 304 persons, 216 of whom received significant services (187 persons with psychiatric disabilities and 29 persons with traumatic brain injuries). Consumer outcomes in employment, independent living, and community integration were used to determine the effectiveness of each site and the project as a whole. All but one site utilized variations on the job-coach model.

Employment and Earnings Benefits

DNP staff interviewed consumers about employment outcomes at four 6-month periods to obtain data that could be compared to employment status data at program entry. Upon program entry, 75.9 percent of the consumers were *unemployed*. By the time consumers had been in the program for six months, the rate of unemployment had declined to 64.4

percent and by the end of 24 months it had declined to 35 percent. Between the first and fourth follow-up period, the percent of persons competitively employed increased from 4.6 percent to 25.0 percent.

During the same time, persons employed in supported and sheltered employment increased from 31 to 40 percent (sheltered employment was often used to supplement extend work hours, but not included in our earnings data). The percentage of persons employed competitively was consistently lower than the percent in supported and sheltered employment. The major gains in employment appeared to be the result of specialized services and support after placement.

Consumers were employed in a variety of jobs, the most common being clerical assistant, cashier in retail trade, building maintenance, and factory assembly. All consumers were employed in unskilled occupations. All consumers were employed in what could be considered as low-skill, high turnover, entry-level, and, in most cases, dead-end jobs. Wage and hour data supported this finding. Analysis of reported hourly wages and hours worked during five 4-month follow-up periods indicated that there were neither significant increases nor decreases in either the hourly wage or the number of hours worked. During each four-month follow-up period, consumers earned an average of $1,284.36 and worked an average of 282.52 hours ($4.54 per hour).

The most common means of support was "on-site job coaching," followed by "multiple support." Multiple supports usually included job coaching, working with employers and co-workers, and off-the-job support. The most common types of "Other, specific" were communicating with employers and co-workers and off-the-job support, including assistance to families of consumers.

Consumers reported mixed and oftentimes conflicting reactions when asked to identify their likes and dislikes about their jobs. No important differences were detected across time or between the two disability groups in this respect. Less than four percent disliked everything about their job, and 27 percent liked everything about the job. The highest percentages of single "like" responses were for tasks and co-workers. About 44 percent of consumers had multiple likes; the most common were tasks and supervision, and co-workers and tasks. The least liked items were hours, supervision, and pay and might be attributed to the fact that consumers worked part-time for almost minimum wages. Twenty-seven percent had no dislikes, 16.7 disliked the tasks, and 11.1 percent disliked the hours.

"Other, Specific" dislikes included travel to work, the job coach, and rapid changes from one task to another.

Independent Living Benefits

Two independent living indicators were examined: (a) housing status and (b) scores on a composite measure of independent living. Housing status was assessed at four 6-month periods and compared to status at program entry. The greatest change in housing status occurred between program entry and the first six months in the program. During that time the percent of persons in independent housing increased from 31.1 percent to 61.9 percent; the percent of persons in group homes or in highly controlled housing declined from 23.6 and 16.9 percent to 2.4 and 3.6 percent, respectively. Housing status did not change significantly during the subsequent three 6-month follow-up periods. Thus, a considerable number of consumers in all programs moved into independent housing during their first six months in the programs. After that time there were only minor changes.

Differences between the two disability groups in the study were also considered. A significant difference in type of housing between persons with psychiatric disabilities and persons with traumatic brain injuries was found at case opening; persons with traumatic brain injuries lived in more restrictive environments. There were no significant differences in housing status between the two disability groups during any of the 6-month reporting periods. The initial significant difference between the two disability groups and the lack of significant difference during follow-up strongly implied that consumers with traumatic brain injuries made greater gains in achieving independence than did persons with psychiatric disabilities.

The second indicator of independent living was a composite measure of housing status, relationship of present housing status to future independent living goals, the process of decision making processes, and general progress in independent living. No changes over time were found on mean independent living composite scores.

Two findings further suggest a lack of change in independent living status after the first six months in the program. First, no significant changes in independent living goals nor in specific independent living skills were reported either over time or between disability groups. Second, there were no significant increases in movement toward independent living goals either across time or between disability groups. Most consumers moved to independent living situations between program entry and their first six months in the program, and many consumers did not subsequently report receiving independent living services. By the end of their first six months in the program, most consumers were able to maintain their independent living status. This finding is consistent with the intent of many programs to move consumers to a least restrictive environment as soon after program entry as possible.

Community Integration

The last criterion looked at individual community integration. Both the philosophical and measured outcome of many programs was to have the consumer integrated into the community and to have him/her function "normally" in society. Community integration was measured by a second composite variable that included the following: housing goals, making own decisions, respect for privacy, assistance required in community living, and involvement in organizations. Possible scores on this measure ranged between 1 and 15, with 15 being the highest level of community integration.

Analyses did not detect significant changes in composite community integration scores over four 6-month time periods. That there were no significant differences in the community integration score among the 6-month follow-up periods suggest that consumers did not become more involved in their communities the longer they remained in the program.

Pearson correlation coefficients were computed between the composite measures of independent living status and extent of community integration to determine whether independent living is associated with community integration. The results strongly suggest that the two constructs may be unrelated ($r = .06$, $p = .305$). Although a person lives independently does not mean that he/she is or is not involved in community life. Consumers were not widely integrated into their communities, and that integration did not increase over time.

Overall, the eleven local programs provided services that resulted in the placement of persons with severe disabilities in both competitive and noncompetitive employment. The project produced increases in the number of consumers who were employed in some capacity and who were living independently. However, in most cases these jobs were marginal in terms of skills, hours, and wages. Most of the gains in independent living took place during the first six months the consumer was in his/her specific program. Finally, the lack of a significant relationship between independent living and community integration suggests that consumers often lived in the community without being a part of the community. The evaluation findings also revealed the following:

- Consumers by and large did not have significant work histories at the time they entered the local programs. Even among those employed, the most common pattern was an entry-level job held for a short time followed by several months of unemployment. These jobs tended to be part-time and paid slightly above minimum wage.
- Efforts among the eleven programs concentrated on the employment and not on independent living or community integration, but integration in terms of housing was fairly good.
- Comparisons of percentages of persons employed before and after entering the program with the percentages of consumers living independently before and after entering the program lead to the conclusion that consumers made as much progress in independent living as they did in employment.
- Programs developed at the eleven sites were all based on local needs, local economy, and local networking between service providers and funding sources. While programs were designed around various contemporary models of supported and community-based employment, the sites tended to take new services and ideas on community-based employment and link them to existing services.
- Two major problems encountered at sites were (a) direct service staff turnover and (b) long-term funding problems. Project staff attempted to deal with these problems by providing training and technical assistance to new staff and by working with sites and local and state levels to access funding. Long-term funding was particularly a problem for individuals with traumatic brain injury.
- Staff and organizations appeared motivated to make significant changes in order to achieve community-based employment outcomes for consumers in these demonstration programs. A key factor behind such motivation appears to be their awareness that they were not providing all the needed services and that many of their consumers wanted to and could work.

- While the funding provided through the project (quite minimal) was a stimulus for acting upon provider-practitioner awareness of need for alternate programming, availability of technical assistance was perceived as more important than the dollars the project provided.
- Continuity of funding to support program operations was a major problem. Agencies uniformly indicated that they were interested in and often able to provide new services if funding were available. Most sites were well networked into local and state funding sources, but many of the programs had availability of consumer-based funds a contingency before accepting them for the program or designing services around their needs.
- Consumer involvement in the direction of these programs was minimal. Consumers were not included in the planning of projects at any site. Only one site hired a consumer as staff member for the project. Although some sites established consumer advisory committees, these groups were neither active nor effective.

Support Systems at the Community Level

Support systems research (Botterbusch, 1992) closely examines basic elements of community-level assistance. On the one hand, a classification for the essential supports needed at the community-level is starting to emerge among persons with serious mental illness successfully working and residing outside institutions, which can be extended to persons with other life-long disability impacts. On the other hand, new case management initiatives are taking a fresh look at what community-based case management means for people who will periodically require rehabilitation-like assistance. Community-level case management is evolving as a continuing process commanded by the consumer (consumer-professional coordination) and with some assurance that an individual is smoothly brought into the process as personal crisis or need arises (need-based access).

The purpose of Botterbusch's research was to develop and test a preliminary model for coordinating community support services through rehabilitation facilities for persons with chronic mental illness. The specific research objectives for the project were (a) to develop a general conceptual model of how community support services can be provided and (b) to test the model in facilities that provide services and support networks to persons with chronic mental illness.

Support Concept

Botterbusch proposed a conceptual model for community-based support systems and developed and field-tested instrumentation for assessing need and access of primary supports by non-institutional individuals with serious mental illness. The conceptual model suggested that supports can be classified in terms of what is to be affected (system or service), who will be enabled (consumer or practitioner), and mechanism used to achieve access to needed resource (skill acquisition or environmental change). Consumer goals are in the areas of economic self-sufficiency and independent living and incorporate both overall degree of independence and requirements for supports received.

Support Needs

A matrix approach to interviewing consumers about their needs and success in accessing resources was developed and field-tested, and a parallel instrument was devised to acquire professional perspectives of general needs identified among their caseloads. Botterbusch interviewed 110 consumers and 27 case managers in six community-based programs in Minneapolis-St. Paul, Milwaukee, and Chicago. The overall rank-order of problems selected was fairly high for consumers and case managers $r = .79$, $p < .01$). The top five problems identified by consumers and the top five problems identified by practitioners are shown on Table 2.

Table 2. Comparison of Support Needs as Identified by Consumers With Serious Mental Illness and Their Case Manager

Consumers (n =110)	Percent	Case Managers (n=27)	Percent
Finding and Keeping a Job	68	Financial Help	93
Financial Help	59	Finding and Keeping a Job	82
Friendship and Intimacy	59	Getting Vocational Training	82
Doing Things for Fun	58	Housing	78
Housing	48	Mental Health Treatment	78

Note: Adapted from Botterbusch (1992).

Botterbusch offered five additional observations from interviews with consumers:

- Consumers appeared to view their needs as quite similar to those in the mainstream: needs for job, security, friendships, enjoying themselves, having good housing;
- Needs for advocacy or for having programs that were consumer run were not high on their list of needs;
- Priority needs, when compared against a classification of hypothetical support models, revealed that interests of these consumers were to learn skills and receive practical services that directly related to their daily survival;
- Consumers perceived attitudes of the public and employers towards persons with serious mental illness as crucial obstacles, if not barriers, to their employment; and
- Jobs held by the majority of consumers were entry-level and often below the skill level of the individuals.

Comparing Alternate Approaches to Employment

This area of research attempts to determine what works, in which formats, for whom, for what duration, and to what extent alternate approaches to employment provide important individual and social benefits. An example of such comparative studies is one conducted by Coker, Osgood, and Clouse (1995) to estimate consumer satisfaction and economic benefits achieved by persons under widely diverging approaches to providing employment: sheltered, enclave, affirmative, job coach methods.

In order to fully exploit the relative benefits individuals can achieve under various employment conditions, nearly 600 individuals with cognitive disabilities (mental retardation) were carefully matched among the four models on intelligence, sex, and disability, with severity a covariate measured with the Functional Assessment Inventory (FAI) (Crewe & Athelstan, 1984). By using a matched sample research design, it was possible to determine whether there were important differences due to the type of employment model rather than to individual differences.

The average worker was 35 years old and had an assessed intelligence quotient of 60. Approximately 60 percent of the workers were female, and nearly 70 percent of the workers had a primary disability of mild mental retardation. Nearly half of the workers had no secondary disability. Of those who had a secondary disability, their secondary disability was often a physical one. For workers in sheltered employment, enclave, and job coach models, the mean score on the Functional Assessment Inventory was around 40, while the mean score for workers in the affirmative industry was 48. Key benefits findings from Coker, Osgood, and Clouse (1995) are summarized on Table 3.

Table 3. Comparisons of Models on Employment Benefits

Criterion Measures	**Employment Models**			
	Sheltered	**Enclave**	**Affirmative Industry**	**Job Coach**
Gross Annual Income	$1,778	$2,336	$3,564	$3,545
Net Annual Income	$1,547	$2,074	$3,047	$3,057
Annual Days Worked	233	155	225	200
Annual Hours Worked	1,027	908	1,344	836
Average Hourly Wage	$1.72	$2.61	$2.60	$3.95
Commensurate Base Hourly Wage	$4.74	$5.03	$5.35	$4.31
Productivity (ratio of earned hourly wage to commensurate)	38%	51%	52%	91%
Average Daily Non-paid Downtime	1.25 hours	None	1 hour	None
Overall Job Satisfaction and Awareness (17 items)	10.95	12.43	13.14	13.21
Job Satisfaction (13 items)	8.98	9.84	10.98	10.25
Job Awareness (4 items)	1.98	2.29	2.16	2.97

Note: Adapted from Coker (1996)

Comparative Economic Benefits

Economic data (wages, productivity, and earnings) were collected quarterly on all subjects for a 12-month period. Each subject's economic data were summed over quarters to obtain totals for the year. Analyses of variance were computed for each of these economic measures across the four different employment models, using FAI scores as a covariant: (a) total days worked per year, (b) total hours worked per year, (c) annual gross wages, (d) annual net income, and (e) mean hourly wage. Significant differences on all five measures were found at or beyond the .001 level. FAI was not a significant factor in most analyses.

Total Days Worked Per Year. The annual number of days worked per year was significantly different among the models, $F(3, 79) = 12.49$, $p<.001$. Workers in the enclave model worked the least number of days (154.95) compared with the other three models. In addition, the mean number of days worked per year in the affirmative industry model (217.56) and sheltered employment (236.54) was greater than that for the job coach model (194.27).

Total Hours Worked Per Year. The number of hours worked per day was multiplied by the number of days worked per year to derive the total number of hours worked per year. Since this measure is not independent of the above two measures, the significant differences found among the models were expected, $F(3, 79) = 6.98$, $p<.001$. Workers in the affirmative industry model worked significantly more hours per year (1344.56) than did those in the enclave (908.19) or job coach (863.86) models, but it was not significant for sheltered employment (1027). In the alternative sample, workers in sheltered employment also tended to work more hours than those in the enclave model or job coach model.

Annual Income. The annual gross income differed significantly among the models, $F(3, 79) = 6.24$, $p<.001$. The means for both the affirmative industry model ($3,564) and the job coach model ($3,545) produced means greater than the sheltered employment model ($1,778). The enclave model ($2,336) was not significantly higher than sheltered employment or lower than the other two models.

The net income was then obtained after taxes and any other standard deductions (e.g., social security). For the sheltered employment, enclave, and affirmative industry models, the net income was the actual figure provided by the agency. For the job coach model, the wage information was provided by records reported to the state's division of vocational rehabilitation and not the actual employer wage statements. Therefore in order to estimate the net income for the job coach model, the average ratio of net to gross for the other three models (86%) was used to provide an annual net income estimate for each subject in the job coach model.

The differences on net income among the models were significant, $F(3, 79) = 6.25$, $p<.001$, and the results of the post hoc comparisons were fairly similar to the gross income. The mean net income for workers in the affirmative industry and job coach models were approximately the same at $3,050 while earnings under the enclave model were $2,074 and $1,547 for persons working in sheltered employment. While these earnings data clearly favor support for the job coach and affirmative industries models, the net and gross earnings are well below the poverty line for subjects in the four employment models.

Hourly Wage. The mean hourly wage for workers in this model showed significant differences among the models, $F(3, 79) = 20.04$, $p<.001$. The mean hourly wage paid in sheltered employment ($1.72) was the least paid of all four models and that paid under the job coach model ($3.95) was the greatest. The mean wages paid under the enclave and affirmative industry model did not differ significantly ($2.61 and $2.60, respectively).

Productivity. Productivity of each worker was calculated by dividing the actual hourly wage by the standard hourly wage for each subject. The differences in productivity for workers under the models were significant, $F(3, 79) = 26.03$, $p<.001$. The estimated productivity of workers under the job coach model (91%) was significantly greater than reported productivity for workers under the other three models. The productivity of the sheltered employment model (38%) was lower than productivity in the enclave model (52%) and the affirmative industry model (51%). The productivity in the latter two models did not differ significantly.

Comparative Job Satisfaction Benefits

Each worker was individually interviewed by project staff using the Job Satisfaction Questionnaire. The interview protocol consisted of 17 items and was developed specifically for this research from prior work by Mason (1990) to identify exemplary supported employment projects. Total scores and relevant subscales were computed (13 items dealt with satisfaction; 4 items dealt with awareness). Job satisfaction questions included items about whether the workers chose their job, liked their job and its setting, liked the work, thought the pay was fair, and thought their job was better than most. Job awareness questions asked about what their job was called, the hardest and easiest part of their job, and whether they had knowledge about pay raises.

Overall Satisfaction. With all 17 items, significant differences were found among the models, $F(3, 159) = 5.40$, $p=.002$. Mean for sheltered employment (10.95) was lower than the mean for the other three models which ranged from 12.43 to 13.21. Workers in the enclave, affirmative industry, and job coach approaches scored higher on the 17 items about job satisfaction and job awareness than did workers in the sheltered employment approach. Overall, sheltered employees were less aware and less satisfied than workers in enclaves, affirmative industries, and job coach models.

Satisfaction. Job satisfaction and job awareness items were also analyzed separately. For job satisfaction, results are somewhat similar to the total score analysis, $F\ 4.17$, $p=.007$, with the mean for sheltered employment (8.98) lower than the affirmative industry and the job coach model and the difference between sheltered employment and the enclave model (9.84) was not significant. Workers in sheltered employment were least satisfied and workers under affirmative industry and job coach models were most satisfied with their working conditions.

Awareness. A different pattern of differences emerged for the awareness. As with the satisfaction items, significant differences were found among the models, $F(3, 159) = 6.80$, $p<.001$. Sheltered employment (1.98) and affirmative industry models (2.16) showed workers were similar in job awareness but lower in their awareness in comparison to workers under the enclave (2.49) and the job coach models (2.97).

Summary of Model Differences on Key Variables

The four models of extended employment in this study differed on most of the variables, which indicates that the models are distinct from one another.

Satisfaction and Awareness. Workers in the affirmative industry and job coach models scored highest on the Job Satisfaction Scale than did workers in the other two models. In contrast, job awareness in the enclave and job coach model was higher than in sheltered employment and affirmative industry models. Overall, workers in the job coach model were both more aware of job conditions and more satisfied with their job.

Annual Hours and Days. The number of annual hours is a combination of the number of days worked and the hours worked per day. The greater the number of hours, the greater the potential for increased income. Annual days reflect the stability of the model in providing full employment. The enclave provided lower numbers of hours, while both sheltered employment and the affirmative industry provided higher numbers of hours. Higher number of days indicate more stability. Sheltered employment and the affirmative industry offered the greatest stability, while the enclave model provided the fewest number of work days and the job coach model was provided the second highest number of days of work.

Productivity. Productivity may be a direct effect of the model with certain approaches resulting in greater productivity of the worker, or productivity may be a result of the characteristic of the worker and not related to the model. The question in this study was whether productivity could be attributed directly to the model. Productivity under the job coach model was highest and lowest under sheltered employment. Productivity under the other two models were similar and fell between the high and low levels of the job coach and sheltered models.

Hourly Earning. The hourly wage paid in each of the models is an important but not sole indicator of economic benefit success. The job coach model paid the highest hourly wage while sheltered employment paid the lowest hourly wage. Wages paid in the enclave and affirmative models were both higher than wages paid in sheltered employment, but all models were lower than those paid under the job coach model. A related factor is that of the standard or commensurate base wage for regular competitive employment. Workers with equal productivity will be paid more per hour when the base wage standard is higher. In this study, the lowest base standard was for the job coach model and the highest was for the affirmative industry. Higher base wages are a factor that can affect the overall hourly wage and should be included in the evaluation of extended employment models.

Annual Income. Total annual income includes the cumulative effect of total hours worked and the hourly wage and represents the actual financial benefits from the model. Across all these factors, sheltered employment was the least effective of the four models in producing financial benefits. While the annual income in the affirmative industry and the job coach model were equal, workers under the job coach model worked fewer hours to obtain comparable incomes because of higher hourly wages. Low numbers of work days for those under the enclave model kept total annual earnings down. Average net income was approximately 87 percent of the gross income. The models maintained their relative ranking when net and gross income ratios were contrasted.

An area that should be kept in perspective is the extent to which total annual income from employment is sufficient for economic self-sufficiency. For example, economic success could be judged in relation to annual earnings through full-time competitive employment in an entry-level position with current minimum wage. Using a minimum wage of $4.25 per hour (in 1991) and annual hours for a full-time equivalent position of 2080 hours, the benchmark annual total for an entry-level position is $8,840. Annualized income for workers under the four models compared to this benchmark value is suggestive: Sheltered employment, 21 percent of annualized minimum wage earning; enclave, 28 percent; affirmative industry, 42 percent; and job coach model, 41 percent of annualized entry-level income. While all models produced earnings, annual earnings are at less than one-half of full-time competitive employment earnings for an entry-level, minimum-wage job.

Distinctions Among the Models

While this study supports other research that has found sheltered employment to provide less benefits than other employment models (e.g., Coker & Valley, 1994; Hill, Wehman, Kregel, Banks, & Metzler, 1987; Noble, 1991; Rusch, Conley, & McCaughrin, 1993), previous research, however, tended to confuse terms: Sheltered employment has been applied in reference to work activity centers and day activity centers, as well as to a sheltered employment models; supported employment has been applied to mobile work crews, enclaves, job coach models, and small business models; and supported employment has been referred to as "competitive" employment with support.

None of the four models is truly competitive employment in terms of achieving an income that would allow self-sufficiency. The differences clearly suggest that sheltered employment is less beneficial than the other three employment models. Workers earn more economic benefits and greater job satisfaction if they are placed in another extended employment model. The following conclusions can be drawn about the four models based upon this research:

Sheltered Employment. Against most measures, this model achieved low marks, except for the annual number of days and job variety. The deficits appear to outweigh the positives of the model.

Enclaves. This model has some attractive features that outweighed a major negative aspect in employment stability (low number of days worked per year). Increasing the number of days per year would be a priority for this model. Increasing the hourly wage rate to the level of the job coach model would also be desirable.

Affirmative Industry. The affirmative industry appeared to be a very stable model with reliance on the work supervisor, higher annual income, and a higher commensurate wage base. Downtime and the job awareness of the workers were deficits. Increasing the hourly wage rate to the level of the job coach model would be desirable.

Job Coach. This model was the only one-on-one model, paid the highest hourly wages, and may result in better productivity of the worker. The dependence on the job coach, a short work day, and lower standard base wage rates are deficits of the model. Increasing hours in the work day and annual days worked, as well as ensuring that support of the job coach is faded to more reliance on the work supervisor would improve this model.

Implementation and Stabilization of Community Programs

Menz and Dudley (1991) conducted a third community-based employment study in order to solicit much needed information on which organizational, economic, and societal variables promote or diminish the increased utilization (implementation and stabilization) of community-based practices. The study attempted to determine administrator experiences and perceptions of (a) how important identified impediments were during program start-up and during program stabilization, (b) which subset of obstacles were most influential in program start-up and program stabilization, (c) what success and solutions did facilities pursue in reducing the influence of those obstacles, and (d) which of the impediments represented true barriers to program success (i.e., could not be overcome or resolved).

As part of that design process, an exhaustive literature review was conducted to identify potential obstacles related to funding, rehabilitation staffing, consumer expectations, facility administration, and state and federal policies and yielded 60 potential impediments or barriers to implementation and continuance of community-based employment models. A five-section questionnaire was developed to solicit data on importance, success, and alternatives used to overcome barriers: (a) Importance of each community-based employment option issue in implementation and in stabilization, (b) five issue impediments most critical to implementation and to stabilization, (c) rated success in overcoming each set of impediments, (d) specific strategies used to overcome each set of impediments, and (e) demographic data on these issues and populations served. Fifty-five of one hundred nationally stratified administrators responded with usable data.

Barriers to Success of Community-Based Employment Programs

Specific issues and the relative frequency with which each was identified as difficult to overcome are presented below. For ease of interpretation, the issues are grouped in terms of the likelihood that they represent a definite barrier (80 to 100 percent unable to overcome issue), likely barrier (60 to 79 percent unable to overcome issue), and potential barrier (40 to 59 percent unable to overcome issue) to provider use of community-based employment option:

- **Definite Barriers.** State focusing programs on specific disability groups, lack of stable long-term funding.
- **Likely Barriers.** Inadequate pay, lack of stable funding for certain disability groups, specific guidelines that affect duration of services, need to develop a facility conversion policy, funding needed to develop new service delivery models.
- **Potential Barriers.** Fees for services, threat of loss of operating revenue, high turnover of community-based employment option staff as compared with general labor force, need to develop conversion policy using constituent input, facilities must make changes in their current funding sources, economic condition of the community, insufficient or inadequate community support.

Critical Issues in Both Implementation and Stabilization

Critical issues in implementation and stabilization were also identified in the Dudley and Menz study. The issues identified as critical in either implementation and stabilization are relatively the same. Fiscal issues (e.g., adequate and stable funding, resources needed to pay adequate salaries) and public policy issues (e.g., policies that place priority on serving specific disability groups) were consistently most critical. Next most often cited as critical were issues arising from client and family concerns (e.g., continued coverage for client-worker). (See Figure 1.)

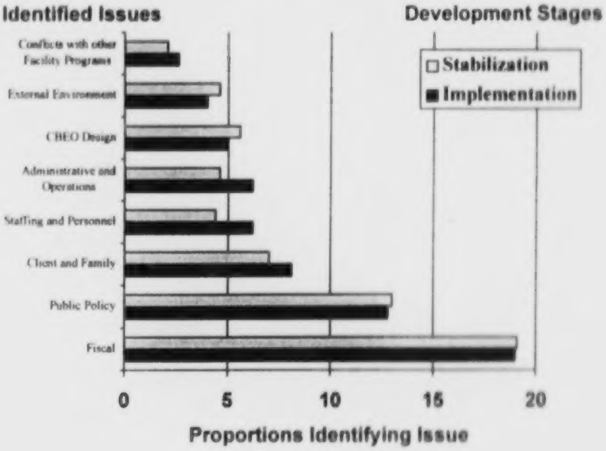


Figure 1. Implementation and Stabilization Issues Critical for Community-Based Employment Programs

More variable, but of slightly greater importance during implementation, were staffing and personnel issues (e.g., adequate pay) and administrative and operations issues (e.g., policy on conversion, administrative support). Least critical in both implementation and stabilization were issues related to design of the community-based employment option, the external environment (e.g., availability of jobs), and issues that might arise due to conflicts between the community-based employment options and other facility programs (e.g., competition for resources).

Solutions to Critical Problems

The solutions facility administrators proposed to overcoming obstacles could be meaningfully classified. Solutions to implementation and stabilization of problems begin with preparing the facility for internal changes, both of a value and structural nature. Once that implementation has been accomplished, though, work shifts to community and to advocacy with legislators and state and federal agencies to find ways to affect policy

BEST COPY AVAILABLE

and maintain public resources necessary to the community-based employment option's program survival.

Over half the solutions proposed to overcome critical impediments to community-based employment options implementation were directed within the organization. Slightly over one-third of the solutions were ones external to the organization. This appears to be consistent with the importance of fiscal- and policy-related issues stated earlier. Facilities often found it necessary to reorganize how they were structured administratively, how staff skills can be used, and how fiscal resources are coordinated during start-up of these new programs.

Nearly two-thirds of the solutions proposed to problems during stabilization were directed to affecting environments and groups external to the organization. These solutions were directed at affecting public program and funding policies and at developing a support for stable resources for community-based employment options and the changes in public policy that would have to occur before that end could be achieved. Approximately one-third of the solutions focused on practices to stabilize or improve vitality of the community-based employment option through the facility (e.g., establish a solid facility foundation through necessary changes and improvements before turning efforts to external changes). Once the facilities had dealt with the issues within the organization and were able to design and implement the programs, they could concentrate more fully on the issues external to the organization.

This study identified significant impediments to facility implementation of community-based employment options and solutions to obstacles faced by facilities as they attempted to stabilize community-based employment options. First, facilities were trying to implement and maintain community-based employment options despite uncertain public policy and unstable funding. Second, issues known to be serious barriers were not directly dealt with. Rather, facilities dealt with a multiple set of impediments, simultaneously, with the intent to circumvent barriers. Third, accepted management practices were used by facilities to solve program design issues and staffing and management issues that arose during implementation and program stabilization.

Ingenuity characterizes the approaches to solving the most critical problems external to agency, public policy, and funding issues. Considerable energies and effort were directed to advocating in the public, fiscal, and consumer sectors. These approaches especially characterize the behavior of successful administrators once the community-based employment option has moved into stabilization.

Program Issues in Community-Based Employment

The analyses of issues identified in the 1989 Atlanta Think Tank and the national conference by Thomas and Menz (1990) documented the research, development, and policy issues in serving persons with traumatic brain injury in community-based settings. That list was supplemented with issues identified from other articles and recent clinical and research findings (Thomas & Menz, 1993; Botterbusch & Menz, 1995a, 1995b; Thomas, Menz, & McAlees, 1993; Botterbusch, 1989, 1990, 1992; Coker, 1992; Decoteau, 1990; Menz 1990, 1993). The issues appear applicable though across populations with other severe disabilities.

- **Meaningful outcome criteria**. Appropriate outcome criteria need to be defined in order to establish reasonable integration goals for individuals. These criteria must consider both what constitutes meaningful work activity and what type of work would be a reasonable goal to pursue. Independent competitive employment may not be a reasonable goal for all persons.

- **Adequate measures of individual productivity.** Improved definitions of employment productivity need to be developed, especially in productivity relative to current abilities, productivity in relation to past abilities, and potential productivity (i.e., their potential for future work and employment mobility). Criteria of success for rehabilitation programs should consider these three sources of productivity.

- **Measures to judge quality of placement**. Measures for assessing the quality of a placement in terms of degree of community integration, job satisfaction, and opportunity for interacting with non-disabled peers need to be developed. These should relate to quality of life obtained by persons placed into community-based jobs, as well as to traditional job benefits.

- **Ecologically valid neuropsychological measures.** The validity of assessment indices (e.g., neuropsychological measures) as they predict specific skill components needs to be investigated. This may require a critical review of the content relevance of current tests to the specific jobs targeted as a primary goal of individuals.

- **Relevant rehabilitation reporting**. Evaluative reports from all rehabilitation professionals need to be presented in vocationally relevant terms, especially those prepared by the clinicians unfamiliar with work consequences. Too frequently reports are not understandable by grass roots program planners, job coaches, and employment specialists.

- **Knowledge of role played by moderator variables**. The impact of moderator variables on social, academic, and vocational outcomes needs to be investigated. Certain factors such as drug abuse, family support, and pre-injury characteristics significantly affect quality of outcomes.

- **Strategies that account for disability syndromes.** Research is needed that identifies possible syndromes following injury, disability, or recovery, and how effectively persons with those syndromes respond to clinical and community-based treatment approaches or models.

- **Usefulness of assistive devices and compensatory aids**. Investigations are needed to examine and report on the functional utility of compensatory aids that will foster community-based employment opportunities. Funding of research and development of orthotic devices and compensatory strategies for specific needs of persons with a head injury could promote a more rapid improvement and application of technology to job and community-integration.

- **Knowledge of patterns of necessary employment supports**. Typical patterns of employment supports (types, frequency, and amount) needed to maintain employment under different community-based models need to be determined before we will be able to obtain comparable data across employment options.

- **Requisite pre-placement skills.** Investigations into which skills are necessary prerequisites before vocational placement is attempted are needed. Controversy abounds as to whether certain skills should be taught in the environment in which they will be used or whether pre-placement training can be effective.

- **Models that involve persons affected by a disability.** Models of team interaction need to be demonstrated that define how the person with a head injury, rehabilitation personnel, family, and employers can work together to foster and sustain community-based employment.

- **Ready access to needed rehabilitation services.** Mechanisms that support long-term follow-up need to be defined and models that include alternative approaches to a central referral point for planning and funding of individual cases need to be devised, studied and demonstrated. Rehabilitation planning with many survivors is complicated by problems associated with identification of long-term funding sources necessary to finance on-job and off-job supports.

- **Necessary support systems in community**. Support systems to maintain persons with traumatic injuries (e.g., brain injury, spinal cord injury) in the community and on a job need to be studied, in order to estimate rehabilitation service needs, duration of support needs, and costs associated with these programs and services.

- **Disincentives to sustaining community-based rehabilitation**. Factors that serve as disincentives to vocational rehabilitation programs need to be defined and studied in order to develop solutions to them. Disincentives that serve to keep people from working may include impending litigation, potential loss of benefits, fear of failure, reluctance to try something new, and unwillingness to accept a job that is less than what they believe they are qualified to do.

- **Training resources for practitioners**. The poor quality and skillfulness of personnel working in community-based employment is a key factor in program success. Training for all levels of service providers and family members is an essential requisite of future success. Both preservice and inservice training for professionals in disciplines relevant to vocational rehabilitation is desperately needed. Job coaches, rehabilitation case managers, counselors, and employment training specialists are rarely adequately skilled or knowledgeable about needs for and approaches with individuals with a traumatic brain injury and other severe injuries.

Issues Particularly Important in Rural Rehabilitation

Rural communities may solve resource problems in ways that are different from those used by urban communities. Estimates range from 25 to 50 percent that persons with disabilities live in what can be properly termed rural areas or small towns (Arnold, Bernier, & Seekins, 1997; Offner, 1990). The potential for rural inhabitants receiving adequate or comprehensive services is often less than in urban areas. While this is true for persons with most types of disabilities, it is perhaps most pronounced when the individual has a low incidence disability (e.g., traumatic brain injury).

Thomas (1990) identified four problems in effectively serving low incidence disabilities in community-based employment in rural America: Lack of personnel with adequate knowledge and experience to work with low incidence populations (medical, vocational, psychological); limited availability of appropriate jobs that allow for meaningful matching of consumers to jobs of interest and appropriate for training, transition, and careers; diffusiveness and unevenness of qualified medical and vocational services for low incidence populations; and excessive time, expenses, and logistics required for travel between services and employment because both resources are apt to be widely separated. On Table 4, these four problems are referred to for individuals with severe traumatic brain injuries in rural settings.

In many urban facilities, higher proportions of the population served by the community-based program come for services because of social and economic disadvantages rather than because they have a traditional disability. In many rural settings, resources are so diverse, dispersed, and uneven that it is difficult to plan or access the variety of services and jobs that may be necessary throughout an individual's life if he/she is to continue to achieve full participation in the community's work, education, and social opportunities. In both urban and rural areas, access to needed rehabilitation resources is drastically curtailed, though for vastly different reasons. In both urban and rural settings, culturally diverse needs, as well as disability needs, are becoming more prevalent.

Implementation of a community-based employment program for survivors of traumatic brain injury in rural areas (and for persons with other low incidence disabilities) may continue to be a considerable problem in the future. Despite the evolution of the field in general (and in addition to the variables mentioned earlier as affecting rehabilitation programs with individuals with traumatic brain injury in general), when rehabilitation programs are provided in rural areas, "being rural" adds a unique set of barriers that must be dealt with. Being "remote," as in Alaska, really extends the meaning of how to get access to high quality, competent, and reasonably costed resources.

Table 4. General Rural Issues and Low Incidence Populations

General Rural Issues

Low incidences of specific disabilities
Severity underplayed
Limited acute or specialized resources
Widely distribution of resources
Unfamiliarity-inexperience with specific disabilities
Personnel qualifications-availability
Pre-existing conditions
Concomitant conditions
Transportation and access
Going from A to B
Remote versus rural
Employment opportunities, alternatives, and competition
Relocation difficulties
Community values importance
Networks of personalities
Value to the community

As Affecting Models for Persons With Traumatic Brain Injury

Relevantly Trained and Experienced Personnel. Availability of personnel with knowledge of brain injury and of rehabilitation approaches appropriate with survivors of brain injury is especially limited and represents one of the greatest barriers to rural rehabilitation.

Availability of Appropriate Jobs. Brain injury often requires considerable flexibility and selectivity in job placement in order to match people with jobs that are appropriate. However, there are both fewer employment opportunities available and very limited variety of job options in rural areas. Many persons may be eliminated from the labor market in a rural area because of such limited opportunities to match individual needs with jobs, or they may face extended unemployment when they are between jobs.

Diffuse and Uneven Services. The relatively low incidence of the disability across these sparsely populated geographic areas usually means that qualified medical and vocational resources are of limited availability and that the availability of support groups and advocacy organizations to promote increased service opportunities are also quite limited.

Travel Time Between Services and Jobs. Persons with traumatic brain injury in community-based employment may still have significant needs for specific rehabilitation services. Rarely are such services convenient to their work and because significant amounts of time are spent in travel to obtain services, the time available for them to work is often quite limited.

Note. From Thomas (1990), Menz &Dudley (1991).

Characteristics Shared by Quality Programs

From program commonalities, problems, program descriptions, site observations, conversations with consumers and staff, and discussions among various projects' staff, a picture of features common to successful programs seems to be developing. The behaviors and attitudes common in successful programs can be classified into organizational practices and program practices.

Organizational Practices

The organization establishes the philosophy and direction under which a program operates. An extremely important indicator of success appears to be the commitment of administration to a belief that persons with severe disabilities can become successfully employed. This attitude is based on knowledge that successful programs can be developed and operated at a reasonable cost. This attitude sets the tone for the entire organization. Consumers and staff in successful programs are very aware of the administration's enthusiasm for developing and operating a successful program. Three specific organizational characteristics seem to apply to successful programs:

- **Organization is in the Community**. The rehabilitation organization is respected within the community as a place where quality services are offered. If the sponsoring organization is a facility, it has the image as an employer, well-run business, and "changer of lives." It is not perceived as a charity. The organization and staff are active in community civic and business groups. Staff and administration know how to access business and civic leaders and how to deal with them effectively. Community involvement often develops over a long period. In short, the rehabilitation organization needs to be perceived as a stable and respected community member with a service and "product" to sell.

- **Attitude of Commitment**. The organization's administration has strong commitment to the program, staff, and its consumers. This is demonstrated by interest in and careful monitoring of the program by administrators. It also means being willing to take risks and to explore new options. Often the attitude of commitment results in organization flexibility: finding a better way to get the job of rehabilitation done.

- **Support for Direct Service Staff**. Staff turnover is a common problem in most sites. Although caused by a variety of factors, turnover and burnout are contained because of management support. Management support includes providing adequate wages, chances for training, inclusion in program decision making, acknowledgment of the difficulty of the job, and permitting job flexibility (e.g., job rotation). This also means providing staff support in the same ways that staff give consumers support. Successful programs support direct service staff both emotionally and materially.

Program Practices

Although the organization can offer a supporting and encouraging environment, specific program practices have positive direct effects on increasing the employment and independent living outcomes of consumers. The following is a list of elements that have a positive effect on consumer outcomes:

- **Long-Term Supports are Determined Early**. The most common reason for not providing services or for ending services before success is the loss or lack of long-term financial support. Program managers, vocational rehabilitation counselors, and county human services organizations must agree on long-term support and then stick to these agreements. The importance of this cannot be over stressed. Lack of and loss of support causes two major problems: (a) some consumers do not receive needed services, and (b) staff spend large amounts of time trying to secure funding, which detracts from providing other services to consumers already in the program.

- **Realistic Evaluation**. Although successful programs apply a wide variety of assessment, evaluation, and occupational exploration methods and philosophies, the common theme is that of realism of the evaluation procedures. Evaluation activities that place an emphasis on critical job-related behaviors, that provide an opportunity to explore the local job market, and that relate consumer interests to specific jobs are characteristic of successful programs.

- **Program Flexibility**. While most programs are established with a definite idea of consumer movement through a sequence of services, in practice most programs are nonlinear. Most programs start with an eligibility determination or assessment. Services beyond this stage usually depend upon the consumer's individual needs. There are few prerequisites to move from one service to the next. Some consumers seek competitive employment as soon as possible, while others take job-seeking skills classes or may work in sheltered employment for short periods of time.

- **Job Development Involving Consumers**. Whether during evaluation or job development per se, the needs of the consumer are carefully considered during job development and job placement. Program staff are well aware of what type of employment consumers are looking for and, if the ideal job cannot be found, what employment is acceptable for a short time.
- **Staff Who Respect Consumers as Individuals**. While the four best practices above could be included under any program and could be measured objectively, the critical element of dedicated staff is more difficult to design into a new program. Staff and consumers know each other well and from this knowledge develop mutual trust in each other's integrity and honesty. Staff need to be hired with these attitudes, and the organization's management must provide reinforcement and reassurance of these consumer-centered behaviors and values.

Search for Explanatory Models

A community-based rehabilitation program is an emerging rehabilitation delivery concept in today's rehabilitation lexicon. It appears to present a departure from how rehabilitation at the local, community-level has historically been conceived and "delivered as services to consumers." As defined above, community-based rehabilitation programs exist to address individual disability and rehabilitation needs. Its purposes are to assist individuals to achieve economic self-sufficiency and community-integration goals that are important to them.

Increasing diversity of individuals (i.e., severity of disabilities, cultural uniqueness, proportion of non-disabled involved, relative differences in priorities for vocational and community-integration) requires these programs to anticipate increased authority, transfer, and involvement of consumers in applying program resources. As a complex rehabilitation process, the community-based program is guided by an individual's perspective of needs, and a community's capacity to respond to those needs, and, at the same time, it responsibly balances competing demands placed upon the resources it can access. It is an emerging rehabilitation concept, we suggest, in which rehabilitation of a community's citizens can be realized when the resources of both the individual *and* his/her community (including family members) are applied to resolve needs created by disability.

A Working Model of Community-Based Rehabilitation

The above research focused upon "what works" from the standpoint of (a) what it does and how it takes place, (b) what its intrinsic value is, (c) what forms it can take in the individual's work life-span, (d) what might be required to ensure an individual's work will be meaningful and valued, and, then, (e) which variables moderate the quality and value that work provides for an individual. This research is leading to an explanatory model(s) of community-based rehabilitation that is useful in both design and application of rehabilitation alternatives addressing individual needs and coincident with community resources.

In the research process, models help relate separate developmental efforts and help construct a viable picture of community-based practices that achieve vocational rehabilitation and valued employment outcomes. For application purposes, models help to interrelate employment research findings with potential alternate programs, guide the selection of useful program features applicable to a given community and/or population needs, and offer guidance as practitioners design vocational rehabilitation and employment options that can be effectively and efficiently provided through a community entity (i.e., a community-base rehabilitation program or rehabilitation facility). The model presented in Figure 2 suggests that rehabilitation occurs as the community's and the individual's resources are enjoined to address an individual's definable, immediate rehabilitation need, and anticipates other rehabilitation needs that may occur in that individual's future.

While the immediate outcome of this vocational rehabilitation is the individual's maximum employment, the goal that cannot be lost sight of is for individuals to obtain and sustain economic parity and community-integration. In the model (including strategies that might be devised for a local community), community-based rehabilitation is applicable both for persons who share similar responses to definable rehabilitation strategies (e.g., supported employment, behavior management) and adaptable to the unique needs of individuals with diffuse, episodic, less predictable responses to disability (e.g., persons with cyclic or situationally triggered needs).

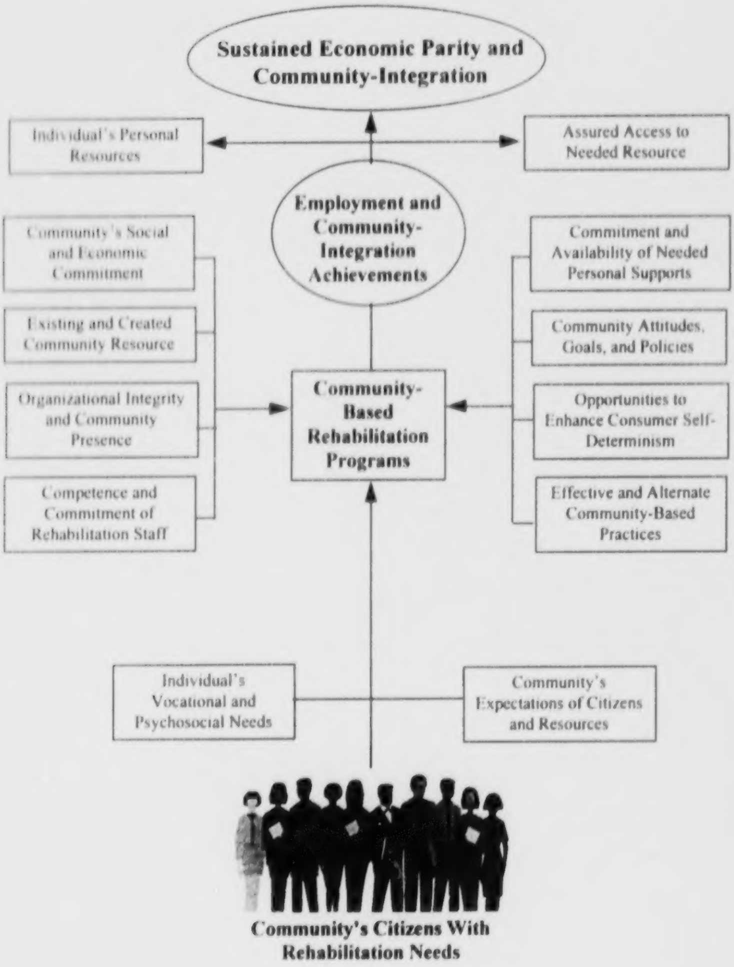

Sustained Economic Parity and Community-Integration
Individual's Personal Resources
Assured Access to Needed Resource
Employment and Community-Integration Achievements
Community's Social and Economic Commitment
Existing and Created Community Resource
Organizational Integrity and Community Presence
Competence and Commitment of Rehabilitation Staff
Community-Based Rehabilitation Programs
Commitment and Availability of Needed Personal Supports
Community Attitudes, Goals, and Policies
Opportunities to Enhance Consumer Self-Determinism
Effective and Alternate Community-Based Practices
Individual's Vocational and Psychosocial Needs
Community's Expectations of Citizens and Resources
Community's Citizens With Rehabilitation Needs

Figure 2. A Community-Based Model for Vocational Rehabilitation

BEST COPY AVAILABLE

In this working concept, community-based rehabilitation is available, accessible, and prepared to deliver the "right resources available when needed" (e.g., short-term interventions, case management, training, technical information). The composition or coordination of rehabilitative practices are those consistent with individual preference for control over how their choices are realized in relation to their goals.

The community-based resources "provided" may be ones created within the community, ones that already exist in community settings (e.g., natural supports), and ones that the individual or the program helps the individual to use or create. As numbers of individuals increase who require periodic access to rehabilitation resources throughout their lives, the community-based program can be the continuing contact point that marshals existing community resources (e.g., fiscal, employment, social, networks) and work with consumers and their personal supports (e.g., their family, co-workers) in order to maintain the consumers' community achievements (e.g., competitive employment, social integration, independent living).

This model views employment both as a vocational outcome and as a transitive state occurring over the lifetime of the individual. Individuals (with or without disabilities) move between differing forms of employment (e.g., entry-level, group and individual, well-paying and not-so-well-paying jobs, between jobs that are temporary and ones that are career defined). Jobs and employment are dependent in some respects upon the individual's needs (disability-based in some cases, skill-directed in others) and the interplay of work-social environments available to or accessible by them. Such environments (and others the reader may define) shape attitudes (the persons, the larger society) and provide experiences (enabling and disabling, work or training directed) which in turn shape their expectations about themselves as productive participants in their community and in employment. Perhaps the likelihood that individuals achieve economic and other benefits from employment (e.g., socialization, opportunity for integration with non-disabled individuals) is more strongly influenced by this history of positive and negative events.

An individual's vocational rehabilitation and subsequent employment are achieved and maintained, the model suggests, through various forms of assistance and support made available to them during and subsequent to their rehabilitation. These assistive supports range from ones that are major systemic resources (e.g., social security insurance, subsidized public transportation) to others that include personal strength and networks, to ones that most people who are integrated into their community typically access, can control, and rely upon to maintain different forms of employment (e.g., placement programs, their individual contacts, family involvement, personal networks, non-rehabilitation professionals, support groups). Among persons with life-long needs for access to rehabilitation sources (such as persons with severe traumatic brain injury or persons with serious mental illness), how well defined and accessible these are for such individuals (or in cooperation with them) is crucial, perhaps even more crucial than the accommodations made on their behalf in a specific job.

The model proposed in the above figure is, of course, in a continuously evolving stage. As the Center seeks to apply it in demonstration or evaluation or selection among options, certain features clearly need to be available, beyond the structural features discussed above. Some of the features that are essential in a usable explanatory model are displayed on Table 5. This list poses features that are desirable from a consumer's perspective and from the intents of the rehabilitation professions. These features are value-driven and consistent with historic humanistic intents of rehabilitation (public, community-based).

"Efficiency" is included in the list but is not properly considered for its importance. Evaluation of potentially applicable models must place equal emphasis upon demonstrated effectiveness and efficiency, as assessed against agreed-upon criteria that are valued in the broad community, issues of viability of the rehabilitation resource (in this case, the provider organization), the economic conditions within specific communities, and how responsibly public resources and individual resources are enjoined to achieve desired outcomes.

These effectiveness-efficiency issues become important in policy development, as well as program design issues. When individual rehabilitation needs are substantial, continuing, or likely to arise at future points in time; when the larger proportions of people place complex demands upon public resources; and when fiscal resources (individual as well as societal) contract, they become the issues that determine the fate of social programs like community-based rehabilitation. In the coming decade, competition for public and non-public funds and the politics of getting diminished amounts of such funds directed specifically to needs of people with disabilities will become increasingly the norm in most communities.

Table 5. Desirable Rehabilitation Features in an Explanatory Model for Community-Based Vocational Rehabilitation

- Individually goal-based rather than service-outcome oriented.
- Adaptable to an individual's complex patterns of personal values, preferences, experiences, decisions, needs, capacities, and technological adaptations.
- Adaptable to the needs of individuals from the wide variety of disabilities, cultures, capabilities, and scope of needs represented in today's rehabilitation programs.
- Effective with individuals with multiple impairments, and interrelates an individual's vocational and avocational needs and goals in planning and delivery.
- Generates alternatives for the individual and the practitioner needed to build upon experience and present status resulting from changes in opportunity and that affect disability (consider the potential for both episodic and life-long needs).
- Prepares individuals to access and efficiently use the variety of resources available within the individual's personal community.
- Effectively addresses vocational and community-integration needs of individuals with severe disabilities.
- Efficiently accommodates persons with less severe disability needs, but who could profit from shorter term community-based rehabilitation.
- Adaptable to needs of individuals with disabling conditions that are cyclic, complex, and intra-personally defined.

Differentiating Alternative Models

Coker and colleagues (Coker, 1990, 1996; Coker & Valley, 1994) examined a cost-benefit methodology for evaluating the efficacy of potential alternate employment options for a community-based program's consumers. This research attempted (a) to fully account for direct and indirect costs, equate costs respective to in-house and community-based programs, and consider the perspectives of different decision-makers (i.e., society, program, individual with disability) and (b) to relate these to agreed upon benefits (e.g., wages, productivity, gross annual earnings, and satisfaction). In the course of conducting that research (particularly in trying to derive common-cost elements), they observed that employment approaches can be differentiated on the basis of "supports" and on the basis of "employment approaches."

"Supports" can be defined as techniques applied to or accessed that assist a worker with a disability to retain employment. Supports may be artificially devised, may be inducements provided to employees to be productive and stable, or may be adaptations applied on behalf of the individual or to the work (site or tasks) to improve productivity or safety. These supports may have their origin and continued accessibility through external, non-work sources (e.g., tax incentives, family and friends, subsidies) or through the traditional, natural work environment.

Natural work supports are typically ones that the employer regularly provides to his/her workers (e.g., supervision, medical coverage, employee assistance programs) or may be provided through some trade-offs in the work environment (e.g., use of peer supervision, choices from a menu of fringe benefits). Costs for natural work supports are part of the business's operating expense (e.g., similar to advertising, supplies). These costs are recovered through increased employee productivity and competitiveness of the employer's products and services (i.e., part of profits). The higher the productivity and/or profits, the more likely supports can be borne under this rubric of "natural" support.

"Employment approaches" may be differentiated on the basis of whether they are (a) pure employment (providing only economic benefits, with supervision and training purely job relevant); (b) support only (employment is a milieu, while supports are oriented to changing non-productive work behaviors or to achieve non-job-specific benefits); or (c) mixed approaches (which contain elements of both rehabilitation and competitive employment).

Support only approaches have goals that are principally rehabilitative and costs are likely to be borne by society through subsidies (including fees) paid to the program or by the individual (e.g., settlements from disabilities). Under mixed approaches, the goals for employment are mixed (e.g., include both rehabilitation and employment intentions), the costs are mixed (e.g., staffing costs cover both rehabilitation and production supervision), and sources to meet costs for supports come through both production and public subsidies (e.g., especially in the form of fees for services).

Employment only approaches have goals to provide viable work to the individual for purposes of achieving profits from services or production. Expectations are that adaptive or rehabilitation supports are integral to the individual's productivity. Costs for support are minimal and may actually be "part of operational costs related to productivity." Instead of envisioning supports as "solutions to rehabilitation problems," supports are considered part of natural operations. In essence, this regular employment setting absorbs costs for certain supports because they contribute to production on the part of the worker (who happens to have a disability).

Choosing Among Models

Decision making regarding options for a community (or perhaps for an individual, as well) must consider the economic and social value of work, understand the resources and benefits from alternate employment models, and keep in mind the relative distribution of costs (attribution of costs) for both wages provided the worker and needed supports to sustain the individual at a desired level of productivity. If work is understood in these terms, then, perhaps, its community utility is accounted for in how availability and economic value of alternative approaches to employment are configured and assured to meet the specialized needs of persons with disabilities served through the community-based employment or rehabilitation programs.

Employment, productivity, and needs for support may not be dissonant to each other. Instead, if we are to understand and justify our choices among alternatives, such decision making must take into account the supports, wages, and benefits that are preferred and incorporate these in rationale for implementing and operating such diverse alternatives as volunteer activities, sheltered employment, supported employment, affirmative industries, consumer-run businesses, set-aside employment programs, and competitive employment.

Cost-benefit analysis is often suggested as a rational method for making fair decisions about best and better alternatives. In the typical cost-benefit analysis, a single standard index is calculated to simplify decision making, based upon comparative efficiency of the alternatives or as a simple index of costs and benefits for specific options that are related (as a ratio) with a dollar scale. In both cases, choice among alternatives (or judgments about a specific alternative) is based upon this measure of relative efficiency.

In typical applications of this strategy in public policy research or evaluation, decision making is further confounded in that the underlying concerns in public policy decision making are ones of government's responsibility to wisely and justly apply scarce public resources. Decision making is not merely choosing among alternatives but more often is directed at reducing disability costs borne by government or at eliminating costs that are peripheral to sustaining the individual in work or at shifting disability costs away from public sources and onto another source--typically, the individual with disability, prospective employers, other "funding sources" (i.e., state and local), or charitable sources.

Values issues, and specifically community-values (e.g., the goals we have for employment benefits of our citizens, what we believe about the worth of individuals with severe disabilities, what we expect society to assure for every person), represent difficulties or variables difficult to account for in public policy decision making. They are not easily measured or equated to the same costs-scale as is necessary in applying a cost-benefit framework in decision making. Present cost-benefit methods are lacking when values are not referenced or, worse, left to influence choice under the guise of relative good in public responsibility terms.

It is quite safe to suggest that all disabilities have costs associated with them, that all persons with significant disabilities require some sorts of support (or accommodations) during their lifetime, and that the form of such supports and costs to meet those needs rises and falls over time. It is also quite safe to suggest that community-values (and those of the persons involved) enter into the decision-making process. We must accept these assumptions about disability and decision making and devise strategies (including cost-benefit strategies) that permit us to examine alternatives based upon actual costs, evident benefits, extent and sources of subsidization, and community values.

These assumptions and distinctions are important since one of the overriding concerns at each level (e.g., federal, state, community, organization) of policy making or decision making application of any employment model is its costs (Coker, 1990, 1995). This above assumption about disability and support needs shape community and play no small part in how a community goes about responsibly distinguishing between employment approaches. Together, these have significant bearing upon how we compute and evaluate cost-benefit ratios and how these judgements are applied in choice among approaches at the community level.

Coker (1995) suggests that such valuing can be entertained in a cost-benefits framework if we consider how cost elements are computed (for wages, benefits, and supports) and where costs are actually likely to be borne (through work, through non-work sources) and help us to better understand how to rationally invest public or other scarce resources. Table 6 displays a simple 2-by-2, where examples of sources of benefits and costs are allocated as natural work place generated and subsidized through public and other non-work sources. The lists included in each cell are examples, of course. Not every employment settings covers all the "benefits" and "supports, and not all supports listed are provided through subsidies to every individual with disabilities.

Table 6. Examples of Natural and Subsidized Economic Benefits and Supports

Natural Economic Benefits	Natural Supports
Wages Health Insurance Unemployment Benefits Disability Insurance Life Insurance Workers Compensation Retirement Profit Sharing Transportation Auto Bonuses	Supervision Co-worker Relationships Circle of Friends Family Recreation/Leisure Resources Employee Assistance Program Wellness Programs On-the-Job Training Education Inservice Training Vacation Sick Leave
Subsidized Economic Benefits	**Subsidized Supports**
Housing Food Stamps AFDC SSI SSDI Unemployment Benefits Workers Compensation Disability Payment Medicaid/Medicare Transportation Farm Supports Tax Deductions	Case coordination Information and referral Mental health services Psychiatric services Abuse Addiction Vocational rehabilitation services Special education services Developmental disabilities services Independent living services Social services Supported Recreation/leisure Supported Residential Services Support Groups
Note. Adapted from Coker (1995)	

What is suggestive to this discussion of sustainable community-based employment and vocational programming is the significant variety of supports and benefits that are or may be revisited as the organization and its constituents go about directing development efforts to specific sources (e.g., exploiting employee assistance programs and prevention activities to acquire appropriate site modifications that might replace individual's specific aids); to creatively access some resources for multiple purposes (e.g., use of specialized tax incentives for wage supplements or for employee transportation pooling); and seek trade-offs among subsidized and employment-based sources of support (e.g., providing on-job training to non-disabled workers in exchange for peer supports).

In this redeveloped perspective, costs and benefits are allocated in relation to their source: from work, from subsidies, from natural, or from created sources. In this scheme, choices among options could be based upon the relative distributions of costs or benefits in terms of whether they are borne through typical work-based or atypical sources. Choice may optimize use of natural supports (e.g., co-workers, fringe benefits) and economic gains (e.g., unsubsidized wages), as is the case in the hypothetical example for competitive employment in Figure 3 (adapted from Coker, 1995). On the other hand, limitations in development of "natural sources" within the community may deem the supported employment model as more or less appropriate in a given community.

Using experience from the above study of four employment models and efforts to account for costs distributed across programs, one may suggest that program models, as depicted in Figure 3, may be distinguished in their reliance upon subsidized and work-based costs. In theory, all but Model A could be paying equivalent wages or other acceptable benefits. Or, social value (in the eyes of the community) for each of the models may be acceptable as alternates for some members of the community (e.g., persons who are prepared to move between models, under a continuum view of disability and employment) or individuals presently being served through the facility. Evaluation of alternatives and decision making would consider wherein continued need for supports due to disability are best distributed.

Option D may be the most preferred alternative, given a community's policy goal to shift costs away from public sources (e.g., the emphasis in social security disability insurance reform proposals). Likewise, Option A may be the least preferred for the large numbers of consumers accessing public services in that most of the costs for supports and wages are borne either by subsidy or by the individual. Options B and C, then, reflect the interaction of the individual's productivity in relation to work-employment, marketable value of the products of the individual's work, and the significance of sources that provide comparable wages, benefits, and necessary supports.

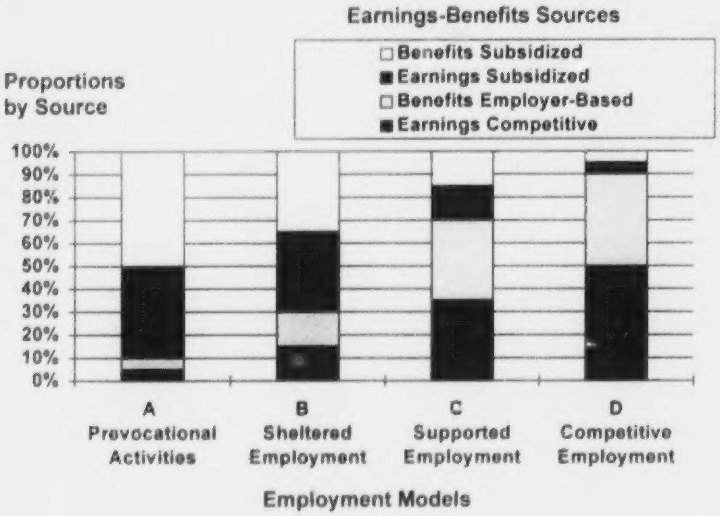


Figure 3. Distribution of Disability Costs for Different Employment Models

In all four examples presented in Figure 3, the approaches are differentiated based upon source of wages and benefits and desirability of wages and benefits being dependent upon subsidies or upon work-produced supports. Choices and decision making about options may be based upon similar cost-benefit data that allocates costs and benefits to their fiscal sources. Alternatives may be represented (as suggested in the figure) that enable the prospective reviewer decision maker to estimate the consequences were each alternative selected.

Traditional cost-benefit data may be insufficient to decisions about alternatives. However, the value of cost-benefit data that enjoins community-values in relation to how benefits and support needs are distributed across four primary sources may facilitate the community's decision making: (a) Wages for valued products and services (i.e., competitive production); (b) supports that are necessary to sustain productivity; (c) the extent to which wages and supports are or can be borne through public, individual, or employment resources; and (d) the community's values regarding how fairly such distribution should occur. Actions on the part of program developer or advocates might, then, focus on determining relative value of preferred options, on determining how and where to reallocate resources or sources when one or another option is considered more desirable, and/or on wherein the constant "support costs of disability" are distributed among public, work, and the individual.

Recommendations

Community-based rehabilitation is intended to provide productive alternatives to facility-based and other more confining service delivery options. Originally, community-based options were intended for only a segment of our rehabilitation population, particularly as delivered through supported employment. Since then, the humanistic appeal to these options has led to their being considered appropriate for a variety of disability populations and for persons with the most severe of disabilities.

Community-based rehabilitation programs like all other rehabilitation programs must effectively serve individuals with disabilities and must maintain staff and resources to continue to serve consumer and other clientele needs. The view of "community-based" as a phenomenon that takes place under the control of one group (i.e., professionals) in a place (i.e., a sheltered workshop or rehabilitation facility) does not recognize the considerable number of alternatives that are being demonstrated.

Over the next few years, rehabilitation professionals and consumers will reconceptualize, develop, and demonstrate a new "rehabilitation" in all sectors of this disability-responsible enterprise. The concept of community-based rehabilitation will be formed more around what individuals and their community can unite as resources to achieve commonly agreed upon goals.

Community-based rehabilitation programs will not be synonymous with a rehabilitation facility or an independent living center or a rehabilitation hospital or a residential rehabilitation program or other current structures called by another name. What will be available, acceptable, and accessible to individuals with disabilities in American communities in the next decade is just now beginning to be envisioned.

As more rehabilitation processes are moved to the community and offered to more individuals with severe and life-long needs for supports, issues of cost, effectiveness, and sustainability become increasingly critical. These issues must be resolved least it becomes impossible for the agencies and our communities to continue to offer these as viable options.

Tomorrow's "rehabilitation program" will remain solvent only to the extent that it remains vital to its community needs and is able to provide quality programs to its community constituencies. Popularity of one type of option, without designing needed mechanisms to ensure survival of community providers of the program, will unfairly rob citizens with disabilities of the variety of rehabilitation options that they desire and fully deserve.

Research to date on supported and community-based models has been, in many ways, an experiment in how to devise, implement, and sustain these true innovations in rehabilitation delivery. While the programs and projects to which the research was attached provided important services, the more valuable outcomes are the guidance, findings, and confirmation for others working to develop more supported and community-based models.

Findings from research on barriers, experiences working through designs of alternatives, the work of colleagues at other research centers, and the implementation of models developed with collaborating community sites are informative about what comprises a model that gets applied and continues to be used. Some ideas and recommendations in this remaining section are more specific to rural-based rehabilitation. Most of them, though, should apply across geography and format of the community-based enterprise.

Developing Community-Based Programs

Recommendations on developing community-based programs are with respect to what needs to be anticipated, what the organization running the program must do and be able to do, how the program is postured in the local community, and how the organizational climate must be prepared to contain and be supportive to the community-based program. The following are not rules but are guiding ideas for designing appropriate community-based programs.

- **Include constituents in planning the program.** Critical constituencies need to be involved in planning the program. Parental support groups, client advocacy groups, and survivor groups need to be included in the planning, execution, and program evaluation at all stages in the program's evolution. Advocates and survivors should include persons from all the linkage organizations that are known to be crucial. These constituencies must also include early involvement of business and industry and local and state political contacts to ensure the program's feasibility and continuance.

- **Establish the program as a resource to the whole community.** Establish capacities to provide or locate what is needed when needed, employment opportunities, and continued commitment to achieving desired outcomes and intermediate goals. This will oftentimes mean developing networks and relationships that permit identification of resources but that also attend to addressing community needs as well.

- **Requirements for the organization to be effective.** Community-based programs are more likely to be successful if (a) existing supported programs are in place; (b) staff are trained and experienced in how to provide work-related services in community-based settings to individuals with specific needs; and (c) coordination of resource access is in place throughout the organization.

- **Early identification of a variety of long-term funding for programs and for individuals.** Alternative methods for providing long-term funding of employment supports must be readily available. One of the greatest problems in providing services to low incidence and underserved populations is securing mechanisms of long-term support. Once these funding mechanisms are established, provision of community-based rehabilitation services becomes much easier and more predictable. Without them, employment in community settings often will cease.

- **Anticipate and plan for support groups and networking.** Support groups provide persons placed in community-based employment situations opportunities to explore and process reasons for successes and failures. This peer group process should occur regularly (e.g., weekly) if planned into the program. Support groups can also be used to aid professionals who are disconnected to the organization. Community-based staff may also find peer support important to provide them both connection to the organization and reinforcement of their professionalism.

- **Establish critical linkages throughout the community.** Certain critical linkages need to be established before the developing program is implemented. Setting these up requires considerable time and resources. These critical linkages include linkages with (a) other programs serving the populations (e.g., other programs serving vocational and/or other needs of survivors of traumatic brain injury); (b) state vocational rehabilitation agency, county, or municipal funding agents for long-term funding; (c) state developmental disabilities or mental health agencies that may co-fund existing programs; (d) mental health clinics and inpatient psychiatric settings that provide ancillary services; (e) alcohol and chemical dependency programs; (f) public schools that provide transitional employment programs; and (g) vocational technical school training programs for remedial education and skill training.

- **Anticipate what it will take to work with unique disability needs.** Programs in community-based settings must be prepared to deal with a wide range of severity within the client referrals they receive (e.g., disability needs vary widely among persons with traumatic brain injury). Models are needed that work with persons with moderate as well as severely affected persons. Consideration should be given to providing services to individuals with mild residual impairments secondary to injury or impairment.

- **Apply clear program criteria.** Clear intake and exit criteria must be established to determine when and whether individuals will be served, as well as for making referrals to other similar programs. Exit criteria must be criteria that help your program and staff determine when the program has and has not been successful.

- **Access to other community resources.** Private-not-for-profit vocational rehabilitation facilities appear to be appropriate for offering community-based programs (e.g., for survivors of traumatic brain injury). Despite the reluctance of many to enter rehabilitation facility programs, rehabilitation facilities appear to be a viable coordination mechanism for the following reasons: (a) Experience providing vocational related services in community-based settings; (b) capacity for providing replacement workers in the event that a supported employee is not able to work; (c) established employment contact networks; (d) staff trained in relevant vocational disciplines (e.g., counseling, rehabilitation engineering, placement, work-site supervision); (e) availability of job seeking skills training and emergency crisis intervention services; and, (f) established linkages and mechanisms for accessing other critical or necessary services and non-vocational resources.

Implementing Community-Based Programs

Solutions to barriers to implementation of community-based employment options were most typically focused to internal behaviors and actions of the organization. In many respects, there needs to be a shift in the organizational culture that permits the organization and staff to accept the evident changes that take place and that keeps the organization as a whole supportive of the community-based options.

Administrators report that most of their energies are given to solving education and public relations, staffing, and operational problems. Recommended practices for implementation are the following:

- Prepare staff for change as early as possible and maintain open communications over the long-haul;
- Anticipate and coordinate the training and ongoing information sharing in all levels and sectors of the organization;
- Invest in staff training for either helping them develop new skills or reorient their values;
- Anticipate and make necessary changes in staffing through reassignment and new hires in both delivery levels and management sectors;
- Establish a commitment to community-based employment options and a planning process that can accommodate changing levels of interest, frustration, and turmoil; fiscal losses; and changes in the external environment;
- Periodically re-examine, renew, and refocus commitment among staff and management to community-based employment options; and
- Adapt the organization's philosophy, service focus, and administrative practices consistent with commitment to community-based employment options.

Stabilizing Community-Based Programs

The focus in solving stabilization problems changes dramatically from solving internal problems to solving external and internal practices that build a long-term base for the program. Administrators of these community-based employment options that survived to become stable, report that most of their energies are directed externally while at the same time ensuring that the business of keeping the community-based employment option continues to work. The greater needs are for attending to and preventing problems due to poor public relations or lack of constituent support and to advocacy with key consumer groups, public agencies, and legislators and policy makers. Several practices that will help to remain vital and stabilize community-based programs are the following:

- Regularly re-examine and recommit administration to community-based employment option;
- Take care of the business of the community-based employment option within the organization;
- Continue to make training, input opportunities, and rewards available to staff in order to maintain staff commitment and quality in the community-based employment option;
- Anticipate and continue to deal with likely fiscal short-falls and volatile job markets;
- Develop a constituent base of support among consumers and advocates around customer success and satisfaction with the community-based employment option;
- Develop and carefully use public relations materials that create awareness among various constituencies of services and benefits obtained by consumers, advantages to employers, and value of these community-based employment option in the individual's own community;
- Develop administrative expertise in state and local guidelines and policies that govern options for stabilizing referral of individuals and funding packages for the community-based employment option;
- Develop and implement a strategic plan for establishing productive relationships with significant individuals in policy, funding, and legislative sectors and proceed to educate and negotiate with them to

achieve those goals; and

- Market the community-based employment option and pursue multiple sources of funding, particularly those that might be combined to establish a more stable base for the community-based employment option.

Indicators of Quality Community-Based Programs

The last recommendations are with respect to several indicators of quality community-based programs. The indicators are presented on Table 7 and are ones that appear to be associated with community-based models that are feasible and show potential to meet changing customer demands. They are not suggested as an alternative to evaluations that demonstrate the relative success of different alternatives.

These indicators are offered, in tentative form, as a mechanism to guide discussion and help the reader better understand what comprises effective delivery of vocational rehabilitation through community-based programs. As the reader goes in search of quality programs, or takes a closer look at their own, they are well advised to examine how well the program options (or prospective alternatives) incorporate quality indicators about (a) the organization, (b) it processes, and (c) its quality control efforts.

Summary and Conclusions

As the 1990s draw to a close, providers and individuals with disabilities will press for strategies and models that deliver greater variety of services relevant to achieving and maintaining economic and independence goals in community-based settings. Case-coordination, counseling, individual planning, family support, assessment, independence training, and supported living are a few examples.

However, important questions remain: How well are the intents achieved and do these community-based options produce sustainable benefits for the intended beneficiaries (e.g., individual consumers, taxpayers, society, rehabilitation programming)? Have these alternatives increased stability, quality, and equity in access to rehabilitation resources at the community level?

This paper drew upon a national program of research and demonstration projects on community-based employment and community-integration of persons with severe disabilities conducted by the author and

Table 7. Indicators of Quality Programs

The Organization. Standing within the community and how the organization goes about sustaining its standing and its connection to customers.

Advisory sources guide direction
Professional staff with expertise in severe disabilities (e.g., in brain injury)
Connections to community resources
Involvement of employer-employment community
Clear indicators of program-organization success
Commitment to consumer
Community credibility
Solvency in both fiscal and program terms

Process Characteristics. Rehabilitation processes designed, delivered, and sustained that are relevant to consumer needs and delivered through professionally competent staff.

Individualization based upon clear, understandable, goal directed plan
Customer(s) participation in determining process
Involvement of significant others as appropriate
Employment options are sought in relation to individual goals and needs
Breadth of employment connections
Professional concentration on syndromes
Focus on measurable individual outcomes
Continuity and accessibility of needed resources
Staff commitment and belief in possibility

Quality Control Efforts. Procedures and practices are in place to assure that customer expectations will continue to be met and to assure that the program will remain relevant within its community.

Defined customer base
Selection, deselection, and success criteria applied
Advertise quality in customer terms and as customer benefits
Able to report benefits for and to its current customers
Track customer satisfaction and benefit retention
Commitment to continuing staff development to maintain professional competence and customer awareness
Evaluation and review process utilized
Corrective actions are anticipated, implemented, and verified
Cost centers support needed resources

his colleagues at the Rehabilitation Research and Training Center on Community-Based Rehabilitation at the University of Wisconsin-Stout. The paper synthesized findings from several Center studies and projects on employment models designed by provider agencies to be consistent with their community needs and resources. The course of development and the evolution of these community-based programs were examined, along with how individual support needs are met through the models and which resources and conditions appear most likely to optimize the benefits achieved from such programs. The paper provided both qualitative and quantitative evidence of the impact of community-based programs in rural settings among persons with severe traumatic brain injury and psychiatric disabilities.

References

Arnold, N. L., Bernier, B., & Seekins, T. (1997). See chapter on *Strategies for increasing rural employment* in this volume.

Botterbusch, K. F. (1989). *Understanding community-based employment and follow-up services* (pp. 15-16). Menomonie: University of Wisconsin-Stout, Research and Training Center.

Botterbusch, K. F. (1990). *Summary of comments from facility staff on questions for supportive community networks (B-115)*. Unpublished manuscript. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Botterbusch, K. F. (1992). *Technical report: Supportive community networks*. Unpublished technical report. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Botterbusch, K. F., & Menz, F. E. (1993a). *Diffusion Network Project. Volume I: Technical Report*. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Botterbusch, K. F., & Menz, F. E. (1993b). *Diffusion Network Project. Volume II: Case Studies of Models*. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Coker, C. C. (1992). *Community transition center model: A transition from school to community model for youth with mild handicaps. Final Report*. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Coker, C. C. (1990). *Vocational rehabilitation facilities as employers of the first resort: Developing unsubsidized employment options.* Presentation made to the Annual Conference of the National Association of Rehabilitation Facilities, at San Diego, California, June 13-15.

Coker, C. C. (1995, March 19). *Value of the concept of Free and Appropriate Community Employment.* Unpublished paper presented at the 1995 Speaker Series: Toward a healthier nation. University of Wisconsin-Stout, Menomonie, WI.

Coker, C. C. (1990). *Cost/benefit analysis for selection and monitoring of community rehabilitation programs.* Menomonie: University of Wisconsin-Stout, Research and Training Center.

Coker, C. C., Osgood, K., & Clouse, K. (1995). *A comparison of job satisfaction and economic benefits of four different employment models for persons with disabilities.* Menomonie: University of Wisconsin-Stout, Research and Training Center.

Coker, C. C., & Valley, J. (1996). Costing employment models. *Journal of Rehabilitation Administration, 19*(3).

Crewe, N. M., & Athelstan, G. T. (1984). *Functional assessment inventory manual.* Menomonie: University of Wisconsin-Stout, Materials Development Center.

Danley, K. S. (1991). *Youth supported employment model programs, a final report.* Boston: Boston University, Center for Psychiatric Rehabilitation.

[illegible], J. P. (1990). *Transitional employment programs: A comparison of different time-limited adult service models for improving employability* (Research Project No. R-(52)). Menomonie: University of Wisconsin-Stout, Research and Training Center.

Goldstein, A. (1993). *The privatization of urban facilities.* Unpublished manuscript, prepared for the Research and Training Center, University of Wisconsin-Stout.

Hill, M. L., Wehman, P. H., Kregel, J., Banks, P. D., & Metzler, H. (1987). Employment outcomes for people with moderate and severe disabilities: An eight-year longitudinal analysis of supported competitive employment. *Journal of the Association for Persons with*

Severe Handicaps, 8, 30-38.

Mason, C. (1990). *The consumer job satisfaction scale.* Reston, VA: American Rehabilitation Association.

Menz, F. E. (1990, June 14). *1990 survey of vocational rehabilitation facilities: Initial profiles for the national sample and for NARF responding facilities.* Presentation made to the Vocational Development Committee of the National Association of Rehabilitation Facilities, San Diego, CA.

Menz, F. E. (1992, February 28). *Head Injury Re-entry Project for Rural Communities: Summary of critical findings.* Paper presentation made at DePaul University Professional Development Seminar, Chicago, IL.

Menz, F. E. (1993, June 14). *Sustainability of community-based rehabilitation: Improving and sustaining quality community-based rehabilitation in rural communities.* Paper presented at the Annual Conference of the National Rehabilitation Facilities, Seattle, WA.

Menz, F. E., & Hadley, W. (1991, May). *Barriers to facility use of community-based employment: A report to study participants.* Paper presentation made at the Association of Educators of Rehabilitation Facilities Personnel meeting in Alexandria, Virginia on May 12, 1991. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Menz, F. E., & McAlees, D.C. (1996, March). Supplemental Materials for Program Review of Vocational Rehabilitation Programs. Presented at NIDRR, Washington, DC.

Noble, J. H. (1991). *The benefits and costs of supported employment for people with mental illness and traumatic brain injury in New York state.* Buffalo, NY: The Research Foundation.

Offner, R. B. (1990). Rural rehabilitation: A challenge for the 1990s. *Journal of Rehabilitation Administration,* 97-98.

Rusch, F.R., Conley, R. W., & McCaughrin, W. B. (1993). Benefit-cost analysis of supported employment in Illinois. *Journal of Rehabilitation,* April/May/June, pp. 31-36.

Thomas, D. F. (1990). Vocational evaluation of persons with traumatic brain injury. In D. W. Corthell (Ed.), *Traumatic brain injury and* vocational rehabilitation (pp. 111-130). Menomonie: University of Wisconsin-Stout, Research and Training Center.

Thomas, D. F., & Menz, F. E. (1996, Summer). Conclusions of a national think tank on issues relevant to community-based employment for survivors of traumatic brain injury. *American Rehabilitation*, 20-24, 33.

Thomas, D. F., & Menz, F. E. (1993). *Head injury re-entry project (Project HIRE)*. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Thomas, D. F., Menz, F. E., & McAlees, D. C. (Eds.). (1993). *Community-based employment following traumatic brain injury*. Menomonie: University of Wisconsin-Stout, Research and Training Center.

Author's Note: For further information contact Fredrick E. Menz at the Research and Training Center on Improving Community-Based Rehabilitation Programs, University of Wisconsin-Stout, [illegible] Menomonie, WI 54751. Phone: 715/232-1380; Fax: 715/232-2251; TDD: [illegible]; E-mail: [illegible]

Critical Issues in the Implementation and Evaluation of Supported Employment

---

Paul Wehman, Valerie Brooke,
Katherine J. Inge, and Howard Green
Virginia Commonwealth University
Rehabilitation Research and Training Center
on Supported Employment

Within the past 15 years, competitive employment has emerged as a gold standard of vocational service that many individuals with significant developmental disabilities and their families aspire to when seeking employment (Coker, Osgood, & Clouse, 1995; Mank, 1994; Powell, Pancsofar, Steere, Butterworth, Itzkowitz, & Rainforth, 1991). At one point, in the not too distant past, most individuals with significant levels of cognitive, physical, and/or psychiatric impairment (Ford, 1995) would leave school and go to an adult activity center or sheltered workshop. Very often there were not even slots available in these segregated day centers and individuals with disabilities were put on a waiting list and had to go home to wait for years at a time (Buckley & Bellamy, 1985). With the emergence of supported employment as a means of obtaining competitive employment, however, there has been an increased level of expectation on the part of parents and individuals with disabilities toward real work in competitive employment settings (Wehman & Kregel, 1995).

Supported employment programs have grown from a very small number in the early to mid-1980s to approximately 3,700 programs nationally, many of them occurring while students are still in school (Wehman, Revell, & Kregel, 1997). This is a significant occurrence because it means that these young adults gain the opportunity for competitive employment experiences before leaving the public school setting and thus can avoid entering an adult activity center.

BEST COPY AVAILABLE

Supported employment grew out of a need to facilitate employment for persons with severe disabilities. Despite the Louis Harris Poll (1994) data revealing 65 to 75 percent of all persons with disabilities still unemployed, this approach has offered help to many.

The growth and popularity of supported employment have occurred rapidly. In the past decade, it is estimated the number of users of these programs has grown from less than 10,000 persons with severe disabilities to approximately 140,000 as of 1995 (Wehman, Revell, & Kregel), and by some accounts these are conservative estimates (McGaughey, Kiernan, McNally, & Gilmore, 1993). The most significant contribution of supported employment programs to the disability field, however, is not necessarily the increased wages, greater dignity, or enhanced opportunities for users but rather the underlying shift of expectations about the individual capacity of persons with severe disabilities. It is instructive to note that before 1980 virtually all individuals with significant cognitive, psychiatric, and/or physical/multiple impairments would rarely, if ever, have been considered for any type of competitive employment situation. Employment of these individuals had been considered far too difficult; it was too much of a risk financially. In fact, individuals with disabilities grew up believing that it was impossible for them to work because professionals had told them so.

However, in the relatively short time of 15 years, these expectations have shifted dramatically because of what some have called "the paradigm shift" and others have referred to as "changing supports" (Bradley, Ashbaugh, & Blaney, 1994). The American Association on Mental Retardation has also influenced this shift of expectations by means of its new classification of individuals with mental retardation (Schalock, Stark, Snell, Coulter, Polloway, Luckasson, Reiss, & Spitalnik, 1994; Smith, Belcher, & Juhrs, 1995). This new classification specifically highlights the role of support to these individuals in terms of duration and intensity of the support when defining the level of retardation the individual exhibits. Therefore, when reviewing the progress that has been made over the last two decades for individuals with disabilities, the philosophical outlook of the individual's vocational capacity and work potential, as well as the "gold standard" outcome of supported employment, cannot and should not be minimized. There has been a significant change in goals that has helped to drive many community efforts to change programs from segregated to integrated (Albin, Rhodes, & Mank, 1994).

Nevertheless, the fact remains that tens of thousands of individuals with significant developmental disabilities remain behind in adult day programs and other segregated forms of adult service day activity. As Weiner-Zivolich and Zivolich (1995) indicate, much more needs to be done now in terms of helping those people enter directly into real employment situations.

Mank (1994), Wehman and Kregel (1995), as well as others (e.g., Murphy & Rogan, 1995) have called for critical examination of the efficacy of supported employment and a hard look at the issues that are preventing further growth of the programs. We believe that supported employment is an excellent program where positive outcomes have been well documented (Thompson, Powers, & Houchard, 1992; Wehman, Revell, & Kregel, 1997); however, as a result of the many successes realized in the first 15 years of supported employment implementation, many more frustrating and considerably more complex issues have also arisen.

The issues will not go away easily, and they have shown themselves to be problems in virtually every state in the United States, as well as many countries overseas (e.g., European Union on Supported Employment, October 19-21, 1995).

Many difficult issues abound, and to discuss all of them would be beyond the scope of this paper; however, there are some issues that seem to be paramount. For example, underrepresentation of some individuals with disabilities in supported employment programs, greater participation by employers, and the issue of career advancement and natural supports are key points that the field is struggling to resolve.

Each of these issues, of course, cannot be solved in isolation, but must be examined in the context of other problematical issues. Therefore, the purpose of the present paper is to look critically at each of these issues that now faces those working in special education and rehabilitation settings with people who have significant disabilities. This paper is not intended to provide all the answers or solutions, but rather to delineate the breadth of each problem by defining the issue and identifying the key aspects that need to be resolved before the field can move forward.

It is increasingly clear to us that until we identify and articulate these issues, we will be unable to clearly communicate with the necessary policy makers and lobbyists regarding the necessary changes to make in prevalent laws and policies. There now are far too many cross-currents in the way people in the field discuss the issues; there also is a significant lack of understanding about the implications of each issue.

Who is Receiving Services in Supported Employment?

As already noted, the employment opportunity of citizens with significant disabilities has improved dramatically due to supported employment. However, despite this national progress, there is undeniable evidence that specific groups of individuals are being excluded from supported employment programs even though they are eligible for these services. For instance, persons with severe or profound intellectual disabilities represented only 10.3 percent of the total number of individuals served in supported employment during fiscal year 1995 (Wehman, Revell, & Kregel, 1997). Individuals with chronic mental illness represented only 26 percent, persons with cerebral palsy only 3.3 percent, and persons reported as having a sensory impairment as their primary disability represented less than 3 percent. Other traditionally underserved groups include individuals with autism (Smith, Belcher, & Juhrs, 1995), multiple disabilities (Sowers & Powers, 1991; Sowers & Powers, 1995), or brain injury (Wehman, West, Kregel, Sherron, & Kreutzer, 1995).

There are many barriers to community employment for individuals with the most severe disabilities. These include attitudinal constraints, staff training, intensive job-site support needs, and funding.

Attitudinal Constraints

Society continues to view individuals with the most severe disabilities as being unable to enter the nation's workforce. The general public typically sees the many and varied disabilities that challenge these individuals to include poor social skills, challenging behaviors, absence of personal care skills, minimal communication abilities, lack of academic skills (e.g., reading, math skills, etc.), and physical and sensory limitations rather than their many and varied abilities. This disability vs. an ability focus has resulted in low expectations for individuals with the most severe disabilities and has kept them from accessing supported employment services. Society must begin to view individuals with disabilities as people with abilities who have support needs rather than individuals who need to be "fixed" before they can become members of the nation's workforce.

Staff Training

It is not unusual for an employment specialist to be given a brief introduction to supported employment and then is immediately asked to begin working with consumers. A primary failure of job coaches to provide adequate support to supported employment consumers is that they did not receive adequate training (Smith et al., 1995). It is understandable that job coaches with minimal training would have difficulty supporting customers with the most severe disabilities. For instance, a job coach assigned to find a job for a customer with autism and a history of self-abuse may not be confident of success if he or she did not know how to identify and implement positive behavioral supports on the job site. Someone without knowledge of assistive technology services and devices would have a difficult time envisioning a job for a person with significant physical disability.

The inability of the employment specialist to fade from the work place also has resulted in the exclusion of underserved individuals from supported employment services. In some instances, this inability to fade is associated with the limited training that the employment specialist has received rather than the consumer's disability. Poor job matching, failure to incorporate the natural supports of the workplace, absence of or poor application of systematic skill instruction, and limited knowledge of technology are but a few of the issues that result in over-dependence on job coaching services.

Various demonstration projects nationally have identified and demonstrated the strategies that need to be in place for individuals with the most severe disabilities to be successful (Ford, 1995; Moon, Inge, Wehman, Brooke, & Barcus, 1990; Smith et al., 1995; Sowers & Powers, 1991). This includes job carving, job sharing, integrated cluster placements, application of assistive technology devices, systematic training procedures, and the identification of community and workplace supports (Parent, Unger, Gibson, & Clements, 1994).

Specialized training and support must be provided to employment specialists as well as to supported employment participants. Supported employment service providers must ensure that they hire and train employment specialists to deliver quality supported employment services that include these "best practices" for success.

Intensive Job-Site Support Needs and Funding

An argument has been made that persons with severe disabilities are more expensive to place, train, and maintain in supported employment. It is unlikely that public funds for supported employment will increase, and in fact, they may significantly decrease as new approaches to funding such as managed care increase reliance on Medicaid funds (Wehman, Revell, & Kregel, 1997). In this current economic climate, supported employment programs may select those individuals whom they perceive as requiring fewer of the limited service dollars that exist. However, individuals with the most severe disabilities will require public support to be maintained in some setting regardless of whether that setting is integrated or segregated (Moon et al., 1990). The question is, should funds be spent to maintain individuals in integrated employment opportunities rather than segregated settings? If the answer is yes, we must continue to explore ways to convert dollars from day programs and sheltered employment to supported employment for the individuals who choose to leave those settings. Supported employment service providers also must explore the use of employer incentives, natural supports of the workplace, social security work incentives, and other options to provide the intensive ongoing support that is needed to maintain individuals with the most severe disabilities in community integrated competitive employment.

Using Employer Incentives to Facilitate the Inclusion of Individuals in Supported Employment

The offer of incentives for employers to hire individuals with disabilities has been an issue of great debate. Many different employer incentives have been advanced by federal, state, and local governments and organizations. These incentives such as vocational rehabilitation on-the-job training stipends, Comprehensive Employment and Training Act (CETA), and Job Training Partnership Act (JTPA) allowances existed long before the era of supported employment. Although these incentives were conceived in the right spirit, to assist employers in hiring, training, and maintaining workers with disabilities, as well as individuals with economic and social disadvantages, they have not always been understood or used judiciously.

Advantages and Disadvantages of Using Incentives

Most supported employment organizations offer incentives to employers as part of a service package. Some of these incentives are recruiting and screening of applicants, the assistance of an employment specialist in accommodating and training the employee, and ongoing consultation to the employer. Incorporated in the service package are employment tax incentives. When marketing supported employment for individuals with severe disabilities, the employment specialist must be careful of when and how to present the explanation of the employer's right to incentives and their ultimate purpose (Miano, Nalven, & Hoff, 1996).

Service providers who underestimate the capabilities of individuals with significant disabilities are most at risk for using incentives inappropriately. Often the managers and employment specialist of these programs view employment incentives as the "hooks" that help convince employers to hire. Using incentives as a bribe does not promote or instill the value of the potential employee's ability to contribute to the company workforce. Instead, it perpetuates the misconception that employers must be compensated in order to take a risk in hiring an individual with a severe disability. This belief is illustrated in the marketing brochures of many service providers. For example, if tax credit is the first item on the list of services the organization offers to an employer, it can be assumed that the organization itself does not value or believe in the capacity of people with severe disabilities. If the employer also holds this belief and has a greater interest in the services rather than the individual's abilities and interests, the employee is vulnerable to dismissal once the credits are depleted.

Although employers have every right to these credits, the employment specialist must match the employer needs and wants to the potential employee's skills and career interests. If this is done correctly, employment hire will be a mutually profitable exchange for both the supported employment consumer and the employer (Bissonette, 1994). Once the employer is convinced that the applicant is the best person for the job, the employment specialist is in a better position to offer the tax credits (Mank, 1996). The information can be disclosed at the end of the job development process as an additional benefit (DiLeo & Langton, 1993). When incentives are presented in this manner, they become the "icing on the cake" rather than the sole reason for hiring.

The purpose of incentives is to compensate the employer for the extra time and effort that may be needed to train and accommodate employees with disabilities and those with economic or social disadvantages. Employers have found these potential groups of applicants to be of value, and it is the job of the employment specialist to inform employers of their existence. Since legislation and regulations frequently change, it is necessary for an employment specialist to keep abreast of the status of incentives and notify employers of when new incentives are established and current programs expire, terminate, or become subject to new regulations. Table 1 provides information on the various tax credits that have been or are being used to facilitate employment for individuals with the most severe disabilities.

One way to address chronic unemployment is to provide accurate information to businesses and people with disabilities. Employers must receive data that can benefit the business community. Too often the issues of funding, rules and regulations, attitudes, and lack of resources are raised as barriers to employment. Employer incentives can build bridges and create opportunities for supported employment. In the next few years, supported employment programs must increase efforts to maintain these incentives and communicate their benefits especially to small businesses. Many would agree that small business is where most employment opportunities exist. Employer incentives can open the door for a dialogue among the businesses, consumers, and supported employment providers in the local community.

Fostering Job Retention and Career Advancement Through Natural Supports

Increasingly local service providers are turning away from the supported employment practices of the 1980s that could be characterized by a strong professional role and are turning toward a more customer-driven approach of doing business (Brooke, Inge, Armstrong, & Wehman, 1997). Service providers have begun to direct their personnel training and administrative resources toward such concepts as customer service, customer satisfaction, and quality improvements (Tilson, 1996). Supported employment consumers are now referred to as customers and are being asked what type of service do they want and/or need to obtain their career goals. No longer do employment specialists feel that they must be the single source of support for the broad range of services that are necessary for a customer to meet his or her career aspirations.

The business community, education programs, and rehabilitation agencies have gained valuable experiences over the last ten years and have become somewhat savvy in their ability to identify the subtle, and sometimes not so subtle, nuances between a high quality supported employment service provider and those that operate an inferior program.

Table 1. Employer Incentives for Supported Employment

Employer Incentive	Description	Recommendations
Targeted Job Tax Credit	**Status: Currently Inactive** Covers qualified wages or expenses that the business incurs or pays to individuals with disabilities working over a specific period of time.	To increase its effectiveness, the incentive should be made a permanent tax statute ([illegible] 1997). This could prevent private businesses from becoming disenchanted with the stopping and starting of the program. A further enhancement would be to expand the program to all individuals with disabilities, not just the individuals registered with their state Rehabilitation program.
The Disabled Access Tax Credit (Title 26 Internal Revenue Code Section 44 Publication 907)	**Status: Active** The Disabled Access Tax is available to small businesses who pay or incur expenses (after 11/5/90) for providing access to persons with disabilities. The maximum credit is $5,000.00 per year. Eligible small businesses are those with either: (1) $1 million or less in gross receipts for the preceding tax year, or (2) 30 or fewer full-time employees during the preceding tax year. Expenditures covered include expenditures such as: • removing architectural, physical, communication, or transportation barriers that prevent a business from being accessible; • providing qualified readers, tapes, and other effective methods of making materials accessible for the visually impaired; • furnishing interpreters for the deaf; • acquiring or modifying equipment, or providing other similar services such as supported employment job coach services, and making modifications or purchasing materials for individuals with disabilities.	The purpose of this credit is to assist businesses who are complying with the Americans with Disabilities Act (ADA). As funds from traditional sources decline for supported employment, programs must intensify their efforts to identify and develop more suitable community and work place supports for individuals with severe disabilities. This tax credit incentive truly offers the opportunity to build partnerships with business and increase the number of supported employment workers in the private workforce.
Job Accommodation Network (JAN)	**Status: Active** Offers free assistance to employers on job accommodation services and devices. Employers can telephone the network and obtain recommendations concerning the identification of assistive technology devices and services.	More creative and aggressive marketing efforts need to be developed so that businesses are aware of JAN. This incentive should be included in business journals, trade shows, Chamber of Commerce state and local offices as well as major newspapers.

Employer Incentive	Description	Recommendations
Association for Retarded Citizens of the U.S.A. On-the-Job Training (ARC OJT)	**Status: Active** Provides a 50% reimbursement of the worker's entry wage for up to 160 hours and provides 25% reimbursement for the second 160 hours. The worker must be mentally retarded with an I.Q. below 70, be at least 16 years of age and unemployed for a minimum of seven days. Only positions that are permanent/full time jobs and pay at least a minimum wage are eligible. This incentive is an excellent resource for students who are making the transition from school to work. There is minimal paperwork and the ARC OJT program technical assistance staff provide assistance to programs for form completion.	As more individuals with moderate to severe mental retardation leave school and seek employment, transition teams must ensure that students, family members, and others are aware of this employer incentive. Appropriate applications should be at every school and vocational rehabilitation office, and guidance counselors, special education teachers, and vocational instructor/counselors must make sure that they access these dollars.
Tax Credit on Architectural and Transportation Barriers	**Status: Active** Employers can receive a credit of up to $15,000 for making their place of business accessible.	Businesses wishing to expand their operations, as well as those considering hiring an individual with a disability, may be inclined to do so if they were aware of this tax credit. The rehabilitation community needs to develop and implement a marketing effort which informs businesses about this resource, and how it can increase the company's earnings if more people shop and buy from them if the business were accessible.
Vocational Rehabilitation On-the-Job Training Program (VR OJT)	**Status: Active** The vocational rehabilitation (VR) agency will share the payment of an employee's wages with the employer for a limited amount of time. Payment and length of time are negotiated by the VR counselor and the employer. Individuals receiving services from the state vocational rehabilitation agency are eligible. The job must be a permanent/full time position that pays at least a minimum wage.	Similar to the ARC OJT program, this employer incentive is very useful for some individuals with disabilities. However, some employers have complained that the process is complicated and requires too much paper work. Some VR agencies have been amending policies for OJT services to make it employer friendly. This effort needs to continue and additional advertising and marketing of this resource to businesses should be implemented across the country.

One critical indicator of success in this new era of customer driven services is employment retention and career advancement.

Natural supports were originally introduced as a potential strategy and/or resource to assist in the job retention and career advancement of persons participating in supported employment services (e.g., Nisbet & Hagner, 1988). This concept as initially perceived includes supports to be provided by individuals, such as coworkers and employers, who are not hired by the human services organization. Natural supports can include such employer resources as employee assistance programs, training programs, co-workers, and supervisors. In addition, a host of community resources can also serve as natural supports to include friends, family members, personal care attendants, generic community services, and existing community resources (Albin & Slovic, 1992). The intent of maximizing the use of natural supports is to increase social integration both at work and in the community through the utilization of a cost-effective means (Anderson & Andrews, 1990; Nisbet, 1992; Nisbet & Hagner, 1988).

In 1992 the Reauthorization of the Rehabilitation Act Amendments (P.L. 102-569) included the term natural supports as part of the federal policy as it relates to the extended services phase of supported employment: "facilitation of natural supports as a possible source of ongoing and extended services" (P.L. 102-569, Sec. 7 (11) (c) & Sec. 637, B. C. 11). With the publication of Public Law 102-569, natural supports acquired national recognition and, for some, instant credibility. Rehabilitation counselors, teachers, job coaches, and program managers were suddenly questioning the federal intent related to natural supports. Some of the typical requests for assistance would include: What does natural supports mean? How do I incorporate the use of natural supports on a job site? Is there a specific time when I need to begin to think about natural supports? How does a new employee direct this natural support process?

At first natural supports were viewed by many as the "new answer" to community inclusion and perhaps best of all a means for reducing rehabilitation expenditures for extended services (Nisbet & Hagner, 1988). However, over time the lack of clarity in the definition of natural supports, as well as the scarcity of data related to best practices, consumer satisfaction, social integration, longitudinal tracking, and benefit analysis, has resulted in a call from the field of rehabilitation for research and inherent activities (Brooke, Wehman, Inge, & Parent, 1995; Griffin, 1992; Kregel, 1995; Wehman, 1992; Wood & Test, 1996).

Few would argue against the importance of people with disabilities fully participating in the selection of their own career paths, the willingness of business to accommodate diverse employee needs, the vital role of co-workers in providing training and support, or the need for family and community supports. The dilemma occurs when supported employment service providers are asked to choose between the use of natural supports in place of more formal supports typically associated with supported employment service providers (Kregel, 1995). Clearly the field must move away from selecting one technique over another and begin to strike some type of balance that is driven by the consumer and his or her job satisfaction and career advancements. Increasing the utilization of natural supports can have many significant benefits in this regard for the consumers of supported employment services; however the conditions and circumstances within which natural supports appears to be most consistently effective as well as ineffective must be identified if the field is going to ultimately increase positive practices.

Extended Services

The extended services or ongoing supports phase of supported employment represents the least examined, the least discussed, and the least researched area of supported employment. Therefore, when natural supports was written into the federal regulation as a new support strategy or method for extended services, this event had a significant impact on the field of supported employment. Initially, it was hoped that this new policy change would improve access to services for those individuals who have no source of extended services funding. Further, there was a hope that national demonstration activities would reveal natural support strategies that are both effective and efficient. Yet, to date there is only very limited evidence of the successful use of natural supports with persons with severe disabilities and no current data to demonstrate longitudinal success (Wood & Test, 1996). Additionally, there is no evidence that co-workers and employers can provide effective interventions and/or responses for persons with severe or profound mental retardation, significant physical disabilities, behavioral challenges, and sensory disabilities (Smith, Belcher, & Juhrs, 1995). Therefore, at a time when supported employment is concentrating on developing new and different strategies for including those people who to date are considered the underserved in supported employment programs, specific natural support practices that are not well matched, that are not systematically applied, and that are not consumer driven may result in a continued barrier to employment success.

Experience tells us that successful and satisfied supported employment consumers are associated with service providers who assist in the development of a career plan at the beginning of the employment process, and in the identification, development, implementation and evaluation of an adequate plan of supports. Yet many service providers continue to repeat the same mistake of putting employment specialists in critical support roles for a consumer without any plan for shifting or fading that support strategy. For example, far too many supported employment programs are not spending enough time identifying, analyzing, and developing transportation supports for supported employment consumers. These programs effectively limit their services because staff time becomes overburdened with providing transportation services. Many of these programs never stop and look at this issue until the supported employment consumer is stabilized on the job and the staff are assisting a new consumer with the employment process. Parent, Unger, Gibson, and Clements (1994) caution the employment specialist to let go of the "do it all" notion and to not wait for follow-up/extended services before establishing community and workplace supports. This work needs to begin before the first day of employment and must incorporate a broad range of useful and creative support options.

Cost Effectiveness

Much of what has been written regarding natural supports is related to the cost effectiveness of this strategy. Yet there are only a few isolated case studies to support this notion. Given the current political climate to limit rehabilitation funding, counselors are now being asked to close long-term supported employment rehabilitation cases into natural supports. Many of these decisions are being driven from a funding perspective and are not in the consumers' best interest. Supported employment service providers need to realize that natural supports are the "options of choice" for securing employment retention and career advancement. However, the identification and the successful utilization of a natural support strategy will not magically occur. It takes time and resources to conduct the necessary brainstorming, plan development, systematic application and co-worker and employer training to ensure that the best natural support option is being utilized and that it continues to be an effective strategy for the individual ([illegible], 1996). While natural support options may be the best option, careful attention must be paid to ensure that we do not further exclude the individuals who require more intervention time or who by nature of their job or community situation are not easily accommodated with natural supports ([illegible], 1993).

The Challenge of Natural Supports

Natural supports have been and continue to be a major movement in the field today. Within a few short years natural supports moved from initial presentation of the concept (Nisbet & Hagner, 1988) to federal regulation (Rehabilitation Act Amendments, 1992). Yet, after almost eight years there is still no commonly recognized definition of this model and/or practice. This lack of a clear definition of natural supports has resulted in individual agencies and organizations developing their own organizational definitions that vary from state to state and from service provider to service provider. Numerous state rehabilitation agencies have been forced to put into operation their notion of natural supports to assist rehabilitation consumers and rehabilitation counselors to write effective Individual Written Rehabilitation Programs (IWRP) that are ultimately used to direct the rehabilitation and employment process. Many supported employment service providers have developed their unique definition of natural supports that many times do not match with the state vocational rehabilitation agency that is funding the services that they are providing. This type of practice results in increased confusion not only between the rehabilitation agency and the employment specialist but more importantly with the consumers of the service. Recently, this confusion was heightened when the natural supports concept was presented not as a model or as a practice but rather as a social phenomenon and/or concept, similar to that of normalization ([illegible], 1995).

Clearly, if natural supports are going to have any significant and long lasting impact on the field, the concept must be defined, measured, and assessed on an ongoing basis ([illegible], 1993). People with disabilities, families, employment specialists and rehabilitation counselors are asking for assistance with the identification and utilization of natural supports in their practices. A good first step in this process would be to adopt an operational definition of natural supports. Once this is accomplished, the field can get on with conducting quantitative and qualitative research designed to measure and assess natural supports.

Conclusion

The purpose of this paper has been to present several critical issues facing those who work in the supported employment field. Developing incentives and alliances with business, implementing natural supports, and including more persons with severe disabilities into supported employment were the major areas discussed. Supported employment has become an important and integral option for persons with severe disabilities who wish to work in competitive employment. This is an approach that builds upon the strengths of the individual and provides for an array of supports tailored to the individual's needs. With the gradual resolution of problems such as those discussed in the present paper, the way will be clear for more persons to enter competitive employment.

References

Albin, J. M., Rhodes, L., & Mank, D. (1994). Realigning organizational culture, resources, and community roles: Changeover to community employment. *Journal of The Association for Persons with Severe Handicap, 19* (2).

Albin, J., & Slovic, R. (1992). *Resources for long-term supported employment.* Eugene, OR: University of Oregon, The Employment Network.

Anderson, B., & Andrews, M. (1990). *Creating diversity: Organizing and sustaining workplaces that support employees with disabilities.* Alaska: Center for Community.

Bissonnette, D. (1994). *Beyond traditional job development.* Washington, DC: Milt Wright Association.

Bradley, V., Ashbaugh, J., & Blaney, B. (1994). *Creating individual supports for people with developmental disabilities: A mandate for change at many levels.* Baltimore: Paul Brookes Publishing Company.

Brooke, V., Inge, K., Armstrong, A. J., & Wehman, P. (1997). *Supported employment handbook: A customer-driven approach for persons with significant disabilities.* Richmond: Virginia Commonwealth University, Rehabilitation Research and Training Center on Supported Employment.

Brooke, V., Wehman, P., Inge, K., & Parent, W. (1995). Toward a customer driven approach to supported employment. *Education and*

Training in Mental Retardation and Developmental Disabilities, 30(4) 308-320.

Buckley, J., & Bellamy, G. T. (1985). *National survey of day and vocational programs for adults with severe disabilities: A 1984 profile.* Unpublished manuscript, The Johns Hopkins University, Baltimore.

Coker, C., Osgood, K., & Clouse, K. (1995). *A comparison of job satisfaction and employment models for persons with disabilities.* Menomonie: University of Wisconsin Stout, Research and Training Center.

DiLeo, D., & Langton, D. (1993). *Get the Marketing Edge!* St. Augustine, FL: TRN.

DiLeo, D., & Luecking, R. (1995). The risks of misapplying natural supports in the workplace. *Supported Employment Infolines, 6*(8), 4-5.

European Union on Supported Employment, Second Annual Conference. (October 19-21, 1995). Dublin, Ireland.

Ford, L. H. (1995). *Providing employment support for people with long-term mental illness: Choices, resources and practical strategies.* Baltimore: Paul Brookes Publishing Co.

Gibson, K., & Green, H. (1996). *Maximizing community and workplace supports.* Curriculum developed at the Virginia Commonwealth University Rehabilitation Research and Training Center on Supported Employment, Richmond, VA.

Griffin, C. (1992). Typical, generic, in vivo, in situ, norman, informal, typical (a.k.a. natural) supports. *APSE Newsletter.* Richmond, VA: The Association of Persons in Supported Employment.

Kregel, J. (1995). Natural supports and the job coach: An unnecessary dichotomy. *VCU-RRTC Newsletter.* Richmond, VA: Rehabilitation Research and Training Center on Supported Employment.

Louis Harris and Associates (1995). Survey for the International Center for the Disabled. The ICD Survey II: Employing Disabled Americans.

Mank, D. (1994). The underachievement of supported employment: A call for reinvestment. *Journal of Disability Policy Studies, 5*(2), 1-24.

Mank, D. M. (1996). Evolving roles for employers and supported employment personnel in the employment of people with severe *disabilities. Journal of Vocational Rehabilitation, 6*(1), 83-88.

McGaughey, M., Kiernan, W., McNally, L., & Gilmore, D. (1993). *National perspectives on integrated employment: State MRDD agency trends.* Boston Children's Hospital.

Miano, M. M., Nalven, E. B., & Hoff, D. (1996). The Pachysandra Project: a public-private initiative in supported employment at the Prudential Insurance Co. of America. *Journal of Vocational Rehabilitation, 6*(1), 107-118.

Moon, M. S., Inge, K. J., Wehman, P., Brooke, V., & Barcus, J. M. (1990). Helping persons with severe mental retardation get and keep employment: Supported employment issues and strategies. Baltimore: Paul H. Brookes Publishing Co.

Murphy, S., & Rogan, P. (1995). *Closing the shop: Conversion from sheltered to integrated* work. Baltimore: Paul Brookes Publishing Co.

Nisbet, J. (1992). *Natural supports in school, at work, and in the community for people with severe disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Nisbet, J., & Hagner, D. (1988). Natural supports in the workplace: A reexamination of supported employment. *Journal of The Association for Persons with Severe Handicaps, 13*(4), 260-267.

Parent, W., Unger, D., Gibson, K., Clements, C. (1994, Autumn). The role of the job coach: Orchestrating community and workplace supports. *American Rehabilitation,* 2-11.

Powell, T. H., Pancsofar, E. L., Steere, D. E., Butterworth, J., Itzkowitz, J. S., & Rainforth, B. (1991). *Supported employment: Providing integrated employment opportunities for persons with disabilities.* White Plains, NY: Longman Publishing Group.

Rehabilitation Act Amendments of 1992, PL 102-569 (1992, October 29). Title U.S.C. et seq. *U.S. Statutes at Large.*

Revell, G., & West, M. (1993). Persons with severe and profound mental retardation in supported employment: Need and availability of community resources. In NIDRR, *Consensus Validation Report: Supported employment for people with severe mental retardation* (pp. 129-140). Washington, DC: National Institute on Disability and Rehabilitation Research.

Schalock, R., Stark, J., Snell, M., Coulter, D., Polloway, E., Luckasson, R., Reiss, S., & Spitalnik, D. (1994). The changing conception of mental retardation: Implications for the field. *Mental Retardation, 32*(3), 181-193.

Smith, M. D., Belcher R., & Juhrs, P. (1995). *A guide to jobs for persons with autism.* Baltimore: Paul Brookes Publishing Company.

Sowers, J., & Powers, L. (1991). *Vocational preparation and employment of students with physical and multiple disabilities.* Baltimore: Paul H. Brookes.

Sowers, J., & Powers, L. (1995). Enhancing the participation and independence of students with severe physical and multiple disabilities in performing community activities. *Mental Retardation, 33*(4), 209-220.

Thompson, L., Powers, G., & Houchard, B. (1992). The wage effects of supported employment. *Journal of The Association for Persons with Severe Handicaps,* 17, 87-94.

Tilson, G. (1996). Building relationships with employers by applying solid customer service principles. *Journal of Vocational Rehabilitation, 6*(1), 77-82.

Wehman, P. (1992). *Achievement and challenges: A five year report on the status of the national supported initiative.* Richmond: Virginia Commonwealth University, Rehabilitation Research and Training Center on Supported Employment.

Wehman, P., & Kregel, J. (1995). At the crossroads: Supported employment a decade later. *The Journal of the Association for Persons with Severe Handicaps, 20*(4), 286-299.

Wehman, P., Revell, W. G., & Kregel, J. (1995). Supported employment from 1986-1993: a national program that works. *Focus on Autism and Other Developmental Disabilities.*

Wehman, P., Revell, W. G., & Kregel, J. (1997). *Supported employment: A decade of growth and impact.* Richmond: Virginia Commonwealth University, Rehabilitation Research and Training Center on Supported Employment.

Wehman, P., West, M. D., Kregel, J., Sherron, P., & Kreutzer, J. S. (1995). Return to work for persons with severe traumatic brain injury: A data based approach to program development. *Journal of Head Trauma Rehabilitation, 10*(1), 27-39.

Weiner-Zivolich, J. S., & Zivolich, S. (1995). If not now, when? The case against waiting for sheltered workshop changeover. *The Journal of the Association for Persons with Severe Handicaps, 20*(4), 311-312.

Wood, W., & Test, D. (1996). *An open letter regarding natural supports.* Paper presented at the annual conference on Vocational Alternatives for Persons with Disabilities, Chapel Hill, NC.

Author's Note: For further information contact Paul Wehman at the Research and Training Center on Supported Employment, Virginia Commonwealth University, VCU Box 842011, 1314 W. Main Street, Richmond, VA 23284-2011. Phone: 804-828-1851; Fax: 804-828-2193; TDD: 804-367-2494; E-mail: pwehman@saturn.vcu.edu

What Works

Ranjit K. Majumder, Richard T. Walls,
Steven L. Fullmer, and Sita Misra
West Virginia University
Rehabilitation Research and Training Center
on Management of Information and
Information Systems in State VR Agencies

Programs of vocational rehabilitation seek to prepare people with disabilities to be qualified workers who perform successfully in employment. Success in employment requires competent performance with respect to three domains of work climate: supports, demands, and constraints (Moos, 1986). Supports for employees with disabilities, just as for all workers, include the quality of relationships with colleagues and supervisors and the physical resources to do the job. Demands include the goals of the work and the purposes of performance. Constraints are those things that reduce effectiveness or prevent an individual from fulfilling job demands. A qualified worker who can (a) develop productive relationships with co-workers and supervisors and (b) accomplish the objectives of the work within (c) the limits of the workplace, then, demonstrates the efficacy of vocational rehabilitation. Human service programs are differentially effective with different individuals. That is counseling, restoration, training, employment support, and the like lead to a worker who performs adequately in some cases but not in others.

In the present research, probabilities for competitive employment following vocational rehabilitation services were calculated based on 108,188 rehabilitation cases. Subsets were created consisting of 19 disabling conditions (e.g., cerebral palsy, mental illness, hearing impairment) and 15 contributing factors (e.g., severity of disability, education, SSDI). Probabilities of competitive employment outcome for these 285 (19 x 15) subsets ranged from near zero to 1.00. For example, the probability of competitive employment for the persons with diabetes who received benefits from SSI (disabled) was 0.11, but the probability for those who had graduated from high school and had a substance abuse disability was 0.94. Although the public Vocational Rehabilitation program works effectively to rehabilitate people with disabilities to competitive employment, it works better with some disabling conditions and contributing factors than others.

Contributing Factors
Identified in the Literature

Some mediating variables that influence sustained competitive employment or self-employment have been investigated. A review of rehabilitation outcomes indicates that early referral to vocational rehabilitation (a) increased weekly earnings and (b) reduced costs of rehabilitation (Wood & Lewis, 1994). For SSDI beneficiaries, return to work was found to associate with shorter length of unemployment as well as higher levels of education (Kunkar & Tonner, 1991). In a sample of 140 individuals with spinal cord injuries living in the community, 27 percent were employed, 33 percent were in unpaid productive activities, and 38 percent were unemployed (Young, Alfred, Rintala, Hart, & Fuhrer, 1994). The best predictive measures of competitive employment for a group of clients with developmental disabilities were the type of disability and a lack of welfare support (Goldberg, McLean, LaVigne, & Fratolillo, 1990). Psychiatric clients seeking competitive employment were found to prefer direct entry into the workforce over a prevocational program (Bond, Dietzen, McGrew, & Miller, 1995). They tended to view the prevocational experience as slowing their progress toward their full employment potential.

Hedric, Chrappa, and Fielkun (1991) identified effective rehabilitation strategies and considerations for older, displaced workers. These included (a) vocational counseling (e.g., mid-life transition, re-evaluation of career goals, loss issues, negative self-perceptions); (b) goal selection (e.g., transferable skills, stable/growing industries, employer banks, network of organizations); (c) training or retraining (e.g., remedial instruction, on-the-job training, self-paced training); (d) job placement (e.g., job club for older workers, immediate search); (e) physical capacities (e.g., performance-based functional abilities, work hardening); and (f) employer education (e.g., high motivation, extensive experience, low turnover, serving the employer as a client, public relations, economic incentives). The success of job fairs for older workers and people with disabilities was described by Rosenthal, Bevans, and Rosenthal (1993). Job fairs were not only successful for placement of people with disabilities and seniors (75 of the 470 applicants) but also provided an excellent opportunity for private sector employers to learn about public sector programs.

Community-based employment services, such as supported employment and co-worker support, have been found effective with a variety of disabling conditions, for example brain injury (Golden, Smith, & Golden, 1993). For a sample of 110 persons with acquired brain injury, a transitional job coaching program was effective in returning 81 percent of them to competitive employment. This service consisted of vocational evaluation, work-adjustment counseling, support provided through situational assessment and specific job analysis, job coaching, and employer education about acquired brain injury (Parente, [illegible], & Evans, 1993).

Of 23 individuals with severe disabilities, 18 remained at the same job for at least six months, assisted by a multifaceted supported employment program (Fabian, Edelman, & Leedy, 1993). The employees with disabilities obtained supports necessary from co-workers/supervisors, received direct assistance from rehabilitation staff, and learned how to self-advocate at the worksite for job support. Co-workers/supervisors learned to provide natural company supports through training and consultation from rehabilitation staff. Employers learned how to effectively place, train, and support persons with disabilities on the job through training seminars provided by rehabilitation staff.

Title I of the Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability in any personnel action against a qualified individual with a disability who can perform the essential functions of a job, with or without reasonable accommodation. It applies to enterprises with 15 or more employees but has sensitized many small businesses as well. Nevertheless, Bruyere and [illegible] (1993) found that there is still no clear understanding of the needed interdependence among significant participants: rehabilitation service providers, private sector representatives, and people with disabilities. Employee assistance programs (EAPs) are also already in place in many companies and can play a role in assisting employees with disabilities maintain a productive employer-employee relationship (Brennan & McLaughlin, 1993).

Rehabilitation in competitive employment requires careful evaluation of functional limitations and functional capacities (Crewe & [illegible], [illegible]). The Job Accommodation Network (JAN) program has documented (Hendricks, [illegible], & [illegible], [illegible]) that effective accommodations need to be targeted toward specific functional limitations in the workplace. A sample of [illegible] employers in New York state viewed persons with severe disabilities as being (a) dependable, productive workers and (b) able to interact with others, especially when provided with appropriate support services (Levy, Jessop, Rimmerman, Francis, & Levy, [illegible]).

It is misleading, though, to make global claims about work adjustment or performance of "people with disabilities." For example, while a statement about dependability of workers with disabilities may be generally accurate, it is more true for some groups of workers than others. Bolton and Brookings ([illegible]) reported that older employees with disabilities were rated by their employers as higher in dependability than younger workers. Similarly, persons with physical handicaps were rated higher than employees with behavioral disabilities on performance, personal adjustment, and dependability. It is, thus, important that appropriate subsets of characteristics be considered in describing or judging the effectiveness of vocational rehabilitation services leading to competitive employment. The intent of the present investigation was to determine which clients with what characteristics have different rehabilitation outcomes.

Method

Target Population

The target population for the present research included [illegible] clients served in the State-Federal Vocational Rehabilitation program coordinated through the Rehabilitation Services Administration. The clients were from all states and territories and comprised all rehabilitation cases closed in [illegible] (latest available data) as "rehabilitated." In the rehabilitation program, all client cases that are closed as successfully rehabilitated are classified as having reached "Status 26," which is the final status for a rehabilitant in the multi-stage rehabilitation process. Successful closures (Status 26) in Vocational Rehabilitation fall into six distinct categories, namely, those who are placed (a) in competitive employment, (b) in self-employment, (c) in sheltered employment, (d) in state agency managed business enterprises (vending stand program), (e) as homemakers, and (f) as unpaid family workers.

Procedure

The Rehabilitation Services Administration that coordinates the Federal-State Rehabilitation Program in each of the 50 states, the District of Columbia, and U.S. territories collects consistent data on all clients (RSA-911 Case Services Report) who exit the rehabilitation program, and the West Virginia Rehabilitation Research and Training Center has been a repository for these national data. The [illegible] data set, the most recent available, was accessed and used in this research project.

Only successfully rehabilitated cases were examined. Within these cases, 19 disabling conditions were selected based on the primary disability of the client. These 19 disabling conditions are commonly identifiable descriptors and were of adequate sample size to conduct meaningful analyses. These disability categories were visual impairment (n=[illegible]), hearing impairment (n=[illegible]), cerebral palsy (n=[illegible]), arthritis and rheumatism (n=[illegible]), muscular dystrophy (n=[illegible]), multiple sclerosis (n=[illegible]), spinal cord injury (n=[illegible]), traumatic brain injury (n=[illegible]), amputations (n=[illegible]), mental illness (n=[illegible]), mental retardation (n=[illegible]), substance (drug or alcohol) abuse (n=[illegible]), learning disability (n=[illegible]), cancer (n=[illegible]), diabetes (n=[illegible]), epilepsy (n=[illegible]), heart conditions (n=[illegible]), respiratory conditions (n=[illegible]), and speech impairments (n=[illegible]). Each of these disability categories was further partitioned into contributing factors or subsets: severe disability, gender, race, marital status, referral source, education, SSI-aged, SSI-blind, SSI-disabled, AFDC, general public assistance, SSDI, [illegible] Disability Support, any public assistance, and work status at application.

Results

How well do the strategies used by the Vocational Rehabilitation program work with the various clients served by that program? To answer this question the categories of primary disability were partitioned into subsets by the categories of contributing factors. In each resulting combination of disability by contributing factor, the probability of being rehabilitated in the competitive labor force was derived. "Competitive employment" was defined as including competitive placements as well as self-employment and supported employment. Competitive employment was contrasted with non-competitive employment (sheltered, unpaid family homemaker, and unpaid family worker) to derive the "Probability of Competitive Employment" for each group of vocational rehabilitation clients. [illegible] the following paragraphs.

Table 1 presents the probability [illegible] for the 19 disability groups. [illegible] Table 1 [illegible] competitive employment [illegible] contributing factors [illegible] with visual impairments [illegible] these clients. [illegible] disabled did not achieve competitive employment. [illegible] Table 1 [illegible] achieve competitive employment. [illegible] competitively employed was [illegible]

On Table 1, the contributing [illegible] application was the highest [illegible] disability categories [illegible] the contributing factor with the [illegible] of contributing factors [illegible]

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]		[illegible]	
		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]		[illegible]	
		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]		[illegible]		[illegible]
	[illegible]	[illegible]	[illegible]		[illegible]
	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]		[illegible]	
		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 1. Probabilities for Competitive Employment (Continued)

Disability	Contributing Factor	Yes or 1		No or 2	
		n #	PCE	n #	PCE
Spinal Cord Injury (n=5,260)	Severe Disability	5,073	0.90	187	0.97
	Gender: 1=Male, 2=Female	3,709	0.92	1,551	0.87
	Race: 1=Black, 2=All Other	443	0.89	4,817	0.91
	Marital Stat: 1=Married, 2=All Other	2,557	0.91	2,703	0.88
	Referral Source: 1=Self, 2=All Other	1,621	0.90	3,639	0.91
	Education: 1=HS Grad, 2=<HS Grad	3,914	0.92	1,346	0.86
	SSI Aged	13	0.75	5,247	0.91
	SSI Blind	1	0.00	5,259	0.90
	SSI Disabled	558	0.79	4,702	0.93
	AFDC	198	0.85	5,062	0.91
	General Public Assistance	174	0.90	5,086	0.90
	SSDI	803	0.73	4,457	0.94
	Veteran Disability Support	52	0.83	5,208	0.91
	Any Public Assistance	923	0.78	4,337	0.93
	Wk. Stat. at App: 1=Compet, 2=Nc	625	0.98	4,635	0.90
Traumatic Brain Injury (n=92)	Severe Disability	63	0.79	29	1.00
	Gender: 1=Male, 2=Female	57	0.89	35	0.72
	Race: 1=Black, 2=All Other	2	1.00	90	0.84
	Marital Stat: 1=Married, 2=All Other	23	0.77	69	0.87
	Referral Source: 1=Self, 2=All Other	18	0.93	74	0.80
	Education: 1=HS Grad, 2=<HS Grad	56	0.86	36	0.75
	SSI Aged	1	0.00	91	0.87
	SSI Blind	1	1.00	91	0.84
	SSI Disabled	23	0.73	69	0.88
	AFDC	2	1.00	90	0.84
	General Public Assistance	17	0.71	75	0.85
	SSDI	30	0.75	62	0.87
	Veteran Disability Support	2	0.00	90	0.84
	Any Public Assistance	25	0.76	67	0.88
	Wk. Stat. at App: 1=Compet, 2=Nc	13	0.92	79	0.83

Table 1. Probabilities for Competitive Employment (Continued)

Disability	Contributing Factor	Yes or 1		No or 2	
		n #	PCE	n #	PCE
[illegible]	Severe Disability	2,518	0.77	[illegible]	0.95
	Gender: 1=Male, 2=Female	2,152	0.88	[illegible]	0.67
	Race: 1=Black, 2=All Other	487	0.76	[illegible]	0.84
	Marital Stat: 1=Married, 2=All Other	1,502	0.83	[illegible]	0.82
	Referral Source: 1=Self, 2=All Other	1,299	0.89	[illegible]	0.86
	Education: 1=HS Grad, 2=<HS Grad	1,876	0.88	[illegible]	0.71
	SSI Aged	17	0.78	[illegible]	0.81
	SSI Blind	2	0.00	[illegible]	0.82
	SSI Disabled	260	0.73	[illegible]	0.81
	AFDC	75	0.72	[illegible]	0.82
	General Public Assistance	84	0.83	[illegible]	0.82
	SSDI	387	0.50	[illegible]	0.87
	Veteran Disability Support	25	0.80		0.82
	Any Public Assistance	836	0.64		0.87
	Wk. Stat. at App: 1=Compet, 2=Not	1,071	0.98		0.75
[illegible]	Severe Disability	23,270	0.86	7,080	0.90
	Gender: 1=Male, 2=Female	15,778	0.90	15,426	0.88
	Race: 1=Black, 2=All Other	7,648	0.90	23,556	0.89
	Marital Stat: 1=Married, 2=All Other	6,277	0.91	25,026	0.88
	Referral Source: 1=Self, 2=All Other	5,961	0.91	25,203	0.88
	Education: 1=HS Grad, 2=<HS Grad	21,713	0.91	9,493	0.87
	SSI Aged	88	0.60	31,236	0.89
	SSI Blind	18	0.87	31,270	[illegible]
	SSI Disabled	4,638	0.68	26,566	0.93
	AFDC	2,124	0.88	29,080	0.89
	General Public Assistance	1,632	0.86	29,572	0.89
	SSDI	3,730	0.72	27,470	0.93
	Veteran Disability Support	218	0.85	30,968	0.89
	Any Public Assistance	8,196	0.77	23,008	0.93
	Wk. Stat. at App: 1=Compet, 2=Not	4,756	0.97	26,447	0.87

Table 1. Probabilities for Competitive Employment (Continued)

Disability	Contributing Factor	Yes or 1		No or 2	
		n #	PCE	n #	PCE
Mental Retardation (n = 23,755)	Severe Disability	20,679	0.78	3,429	0.80
	Gender: 1=Male, 2=Female	13,897	0.79	9,938	0.72
	Race: 1=Black, 2=All Other	6,508	0.82	17,559	0.74
	Marital Stat: 1=Married, 2=All Other	1,402	0.81	22,388	0.76
	Referral Source: 1=Self, 2=All Other	2,906	0.80	20,770	0.75
	Education: 1<HS Grad, 2=>HS Grad	1,301	0.83	22,424	0.76
	SSI Aged	101	0.63	23,625	0.76
	SSI Blind	67	0.78	23,677	0.76
	SSI Disabled	9,117	0.63	14,607	0.84
	AFDC	2,073	0.78	23,671	0.76
	General Public Assistance	608	0.69	23,097	0.76
	SSDI	3,234	0.65	20,471	0.78
	Veteran Disability Support	50	0.27	23,696	0.76
	Any Public Assistance	9,966	0.68	13,759	0.84
	Wk. Stat. at Appl: 1=Compet., 2=NC	2,069	0.80	23,679	0.75
Substance Abuse (drug or alcohol) (n = 22,178)	Severe Disability	12,349	0.58	9,768	0.59
	Gender: 1=Male, 2=Female	16,353	0.60	5,825	0.58
	Race: 1=Black, 2=All Other	7,472	0.60	14,706	0.59
	Marital Stat: 1=Married, 2=All Other	3,302	0.60	18,850	0.59
	Referral Source: 1=Self, 2=All Other	3,008	0.58	19,130	0.59
	Education: 1<HS Grad, 2=>HS Grad	15,472	0.59	6,726	0.58
	SSI Aged	13	0.70	22,177	0.59
	SSI Blind	15	0.87	22,163	0.59
	SSI Disabled	372	0.63	21,806	0.59
	AFDC	913	0.46	21,267	0.59
	General Public Assistance	3,470	0.58	18,722	0.59
	SSDI	200	0.66	21,978	0.59
	Veteran Disability Support	113	0.56	22,065	0.59
	Any Public Assistance	8,225	0.47	13,953	0.66
	Wk. Stat. at Appl: 1=Compet., 2=NC	2,981	0.60	19,198	0.59

Table 1. Probabilities for Competitive Employment (Continued)

Disability	Contributing Factor	[illegible]		[illegible]	
		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Severe Disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	Race: 1=Black, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Marital Stat: 1=Married, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Referral Source: [illegible], 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Education: 1=HS Grad, 2=<HS Grad	[illegible]	[illegible]	[illegible]	[illegible]
	VR Aged	[illegible]	[illegible]	[illegible]	[illegible]
	VR Blind	[illegible]	[illegible]	[illegible]	[illegible]
	VR Disabled	[illegible]	[illegible]	[illegible]	[illegible]
	AFDC	[illegible]	[illegible]	[illegible]	[illegible]
	General Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	SSDI	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible] Disability Support	[illegible]	[illegible]	[illegible]	[illegible]
	Any Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	Wk. Stat. at App: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Severe Disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	Race: 1=Black, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Marital Stat: 1=Married, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Referral Source: [illegible], 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Education: 1=HS Grad, 2=<HS Grad	[illegible]	[illegible]	[illegible]	[illegible]
	VR Aged	[illegible]	[illegible]	[illegible]	[illegible]
	VR Blind	[illegible]	[illegible]	[illegible]	[illegible]
	VR Disabled	[illegible]	[illegible]	[illegible]	[illegible]
	AFDC	[illegible]	[illegible]	[illegible]	[illegible]
	General Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	SSDI	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible] Disability Support	[illegible]	[illegible]	[illegible]	[illegible]
	Any Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	Wk. Stat. at App: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 1. Probabilities for Competitive Employment (Continued)

Disability	Contributing Factor	[illegible]		[illegible]	
		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secondary Disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	Race: 1=Black, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Marital Stat: 1=Married, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Referral Source: 1=Self, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Education: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Aged	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Blind	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Disabled	[illegible]	[illegible]	[illegible]	[illegible]
	AFDC	[illegible]	[illegible]	[illegible]	[illegible]
	General Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	SSDI	[illegible]	[illegible]	[illegible]	[illegible]
	Veteran Disability Support	[illegible]	[illegible]	[illegible]	[illegible]
	Any Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	Wk. Earn. at Appl. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secondary Disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	Race: 1=Black, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Marital Stat: 1=Married, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Referral Source: 1=Self, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Education: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Aged	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Blind	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Disabled	[illegible]	[illegible]	[illegible]	[illegible]
	AFDC	[illegible]	[illegible]	[illegible]	[illegible]
	General Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	SSDI	[illegible]	[illegible]	[illegible]	[illegible]
	Veteran Disability Support	[illegible]	[illegible]	[illegible]	[illegible]
	Any Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	Wk. Earn. at Appl. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 1. Probabilities for Competitive Employment (Continued)

[illegible]	Contributing Factor	Status 26		Status 28	
		χ2	SIG	χ2	SIG
[illegible]	Severe Disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	Race: 1=Black, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Marital Stat: 1=Married, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Referral Source: 1=Self, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Education: 1=HS Grad, 2=Non HS Grad	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Aged	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Blind	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Disabled	[illegible]	[illegible]	[illegible]	[illegible]
	AFDC	[illegible]	[illegible]	[illegible]	[illegible]
	General Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	SSDI	[illegible]	[illegible]	[illegible]	[illegible]
	Veteran Disability Support	[illegible]	[illegible]	[illegible]	[illegible]
	Any Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	Wk. Stat. at App. 1=Compet, 2=Other	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Severe Disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	Race: 1=Black, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Marital Stat: 1=Married, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Referral Source: 1=Self, 2=All Other	[illegible]	[illegible]	[illegible]	[illegible]
	Education: 1=HS Grad, 2=Non HS Grad	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Aged	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Blind	[illegible]	[illegible]	[illegible]	[illegible]
	SSI Disabled	[illegible]	[illegible]	[illegible]	[illegible]
	AFDC	[illegible]	[illegible]	[illegible]	[illegible]
	General Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	SSDI	[illegible]	[illegible]	[illegible]	[illegible]
	Veteran Disability Support	[illegible]	[illegible]	[illegible]	[illegible]
	Any Public Assistance	[illegible]	[illegible]	[illegible]	[illegible]
	Wk. Stat. at App. 1=Compet, 2=Other	[illegible]	[illegible]	[illegible]	[illegible]

Table 1. Probabilities for Competitive Employment (Continued)

[illegible]	Contributing Factor	[illegible]		[illegible]	
		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Severe disability	[illegible]	[illegible]	[illegible]	[illegible]
	Gender: 1=Male, 2=Female	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Average weekly earnings at case closure for the 15 disability groups are reported in Table 2. The table includes both full time and part time workers as well as many in the "non-competitive" column with no earnings. Highest average earnings occurred for people with heart conditions. Lowest earnings in competitive employment were [illegible] for those with [illegible]. The overall mean earnings for those individuals rehabilitated in competitive employment were [illegible] per week. For those rehabilitated in non-competitive employment categories, the overall mean earnings were [illegible] per week.

Table 3. Average Weekly Earnings at Case Closure [illegible]

Category		N	Competit. Mean	N	Non-Compet. Mean
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note. [illegible]

Discussion

The present findings show varied effectiveness of the public Vocational Rehabilitation program. Generally, however, the program does well in the difficult process of assisting severely disabled individuals to achieve competitive employment outcomes. Vocational Rehabilitation counselors are change agents in the process of bringing qualified workers to the labor force.

Highest probabilities of competitive employment for 18 of the 19 disability categories were associated with either (a) competitive work status at application or (b) nonsevere disability. People who had a work history were likely to be rehabilitated into competitive employment. Work history information assessed in the formative stages of a rehabilitation case provides cues to vocational accomplishments and motivation and sets the stage for rehabilitation planning. Even for disabling conditions associated with lower probabilities such as visual impairments, previous experience in the world of work constitutes a huge advantage. Rehabilitation clients with disabilities categorized as nonsevere had higher rates of competitive employment than individuals with severe disabilities. It is evident that extra time, efforts and cost will be required to bring individuals with severe disabilities to the competitive labor force.

Lowest probabilities for competitive employment among 18 of the 19 disability categories were associated with receipt of benefits from public programs. Disincentives associated with public benefit programs act to reduce the probability of competing successfully in the job market (Walls, Dowler, & Fullmer, 1990). There are disincentives involved for many individuals receiving SSDI, SSI, and other forms of assistance that could be jeopardized by earned wages and may constantly [illegible] in vocational rehabilitation. People receiving such public benefits, however, are often the most severely disabled and [illegible].

Rehabilitation counselors provide services to clients from [illegible]. If an individual meets the eligibility criteria, services are rendered, regardless of the probability of competitive employment. The probabilities reported in the present investigation should assist the counselor as a source against which the desirability of serving one consumer over another is evaluated. They do, however, provide evidence for decisions regarding the form and extent of supports or resources that may be required to effect a successful outcome. More creative or dedicated effort may be needed to bring some individuals with [illegible] to competitive employment outcomes. Therein lies the challenge for

[illegible]

References

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

3

Rehabilitation Populations Oriented Research

Community Integration Through Vocational Rehabilitation For Persons With Psychiatric Disabilities

[illegible]
[illegible]
University of Illinois at Chicago
National Research and Training Center
on Psychiatric Disability

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

training programs (Sherman & Porter, 1991), and job clubs (Jacobs, Wissusik, Collier, Stackman, & Burkeman, 1992).

Efficacy of Vocational Services

Research has indicated the superiority of vocational rehabilitation approaches that provide ongoing rather than time-limited supports. Vocational services that place workers into jobs quickly, with very brief prevocational assessment and training periods, if any, also have been shown to lead to better outcomes for mental health consumers. Also apparent is the movement away from work in groups with intensive on-site job coaching, which may draw unnecessary attention to workers' disabilities, to individualized models that are more natural and less stigmatizing (Cook, Jonikas & Solomon, 1992; Cook & Pickett, 1995).

Recent research suggests that the *availability of ongoing assistance to employed consumers* is critical (Arns & Linney, 1995). In one study of 550 persons in a psychosocial rehabilitation program who received vocational services, a logistic regression analysis to predict employment status six months after program exit found that ongoing support was a significant factor in a program model that controlled for education, ethnicity, and types of job supports received (Cook & Rosenberg, 1994). Another study of a model program at the same agency (Cook & Razzano, 1992) found that providing ongoing, as-needed, workplace-based employment support to those who held at least one prior, paid job raised the employment rate from 50 percent to above 80 percent over the 36-month program period. A comparative study of two day programs providing sheltered work to individuals with psychiatric disabilities found that the one converting to a supported employment approach with ongoing job services achieved superior vocational outcomes compared to the program that continued its original sheltered work model (Drake et al., 1994). It would seem that the twin services of community job placement and ongoing supports have advantages over sheltered workshop and time-limited models for people with psychiatric disability.

Another principle with demonstrated effectiveness is *rapid placement of persons who are seeking employment*. For example, one randomized study of a job training program in a Veteran's Administration medical center found that individuals with mental illness who were placed immediately into medical center jobs had better vocational outcomes than those who participated in prevocational crews before placement (Bell, Milstein, & Lysaker, 1993). Another randomized study found that those supported employment participants who were immediately placed in jobs achieved outcomes (e.g., higher employment rate, higher job satisfaction) superior to those who received prevocational services prior to their first jobs (Bond, Dietzen, McGrew, & Miller, 1995). Despite high levels of satisfaction in one small supported employment program, participants were most dissatisfied with the amount of time it took to obtain employment (Danley, Rogers, MacDonald-Wilson, & Anthony, 1994). Based on their study of a transitional employment program for people with psychiatric disabilities, Schultheis and Bond (1993) speculate that individuals who work for long periods in an in-program setting, especially if they have participated in *paid* employment training in the past, experience a "demoralization" effect that leads to poorer work behavior ratings by vocational staff.

Persons With Psychiatric Disabilities as Vocational Service Providers

During the past decade, employment options for individuals with psychiatric disabilities have expanded including their employment as service providers in a variety of rehabilitation roles in delivery of employment services. People with psychiatric histories have been hired as job coaches (Cook, Jonikas, & Solomon, 1992) as well as program staff and directors of vocational rehabilitation programs (Forte, 1991). Additionally, economic development approaches have been used to start up and operate consumer-run businesses (Warner & Polak, 1993; Trainor & Tremblay, 1992).

Even consumer-run drop-in centers have responded to the needs of their clientele by offering vocational rehabilitation services (Kaufmann, Ward-Colasante, & Farmer, 1993). One report, describing nine Pennsylvania Department of Mental Health-funded drop-in centers, found that with quite minimal funding (the average center award totaled just $16,500 per year), each center helped participants prepare resumes, obtain job leads, negotiate the job search process, and maintain jobs over time; some offered supported work, training in word processing, or job placement services. A follow-up report on the nine projects one year after startup (McCormack, 1992) found that 18 percent of all participants (N=123) had performed some type of unpaid work at the drop-in center, 7 percent (N=48) had received job seeking skills training, and 4 percent (N=25) had received assistance following up job leads. Regarding employment outcomes, 4 percent (N=25) acquired full- or part-time jobs outside the centers, while another 5 percent (N=29) were employed within their centers.

Another project, based in Pittsburgh, called The Self Help Employment Center, used a model combining peer supports with professionally provided vocational services (Kaufmann, Roth, & Cook, 1992). Persons with psychiatric disabilities in this project provided job skills training and counseling to program participants coupled with job development and ongoing supports from nondisabled providers. In a randomized study comparing this model to "customary vocational services," results indicated that those in the experimental condition showed significant improvements in employment status over time in comparison with the control group (Kaufmann, 1994).

Effects of Employment on Workers' Self-Esteem

The mental health consumer empowerment movement has focused attention squarely on aspects of employment that are esteem-enhancing, dignifying, and rewarding as well as financially remunerative (Fisher, 1994; Harp, 1991). This shift has turned attention to outcomes such as life satisfaction, quality of life, and job satisfaction, and how these are influenced by work experiences.

Several studies have explored the connection between self-esteem and the employment of persons with psychiatric disabilities. In one naturalistic follow-up study of the connection between self-esteem and employment for 88 persons with psychiatric disabilities (Arns & Linney, 1993), feelings of self-esteem, life satisfaction, and coping mastery were significantly higher among those who had experienced positive changes in employment (e.g., becoming employed, moving to better jobs). The theoretical model derived from this research suggests that improvement in vocational status increases feelings of self-efficacy, thereby improving self-esteem which, in turn, improves life satisfaction. This research indicates the importance of studying not only static indicators of employment success (e.g., employed/not employed) but *changes* in employment status as well. In another study, those expressing the most *dissatisfaction* with their unemployment were those living in the community with friends or family (Hatfield, Huxley, & Mohamad, 1992). The authors argue that this suggests the important role that social context plays in defining what individuals will find satisfying in the employment realm.

In a recent study of the effects of employment status on quality of life among 110 persons with mental illness, Fabian (1992b) found that having a supported employment job was associated with higher satisfaction on such dimensions as work and finances, but not on areas such as family, safety, or health. Noting the specificity of effects on some life domains but not others, the author warns service providers about the dangers of expecting work to be a panacea for all of a person's problems. In a separate analysis, employed men, but not employed women, with psychiatric disabilities were more satisfied than were their non-working counterparts (Fabian, 1989). Life satisfaction for working women may be mediated by a number of factors, including quality of home life and child care, which may lower satisfaction for employed versus non-employed women with psychiatric disorders.

Job Satisfaction

A focus on job satisfaction among workers with psychiatric disabilities is long overdue, given its importance to vocational outcomes in the general population (Cook & Pickett, 1995). Persons with psychiatric disabilities in one supported employment program had especially low levels of job satisfaction, which the authors suggested was possibly due to their *underemployment* at jobs below their skill levels (Danley, Rogers, MacDonald-Wilson, & Anthony, 1994). Bond, Dietzen, McGrew, and Miller (1995) found that individuals in a supported employment program who received job placements within a month had higher job satisfaction (especially satisfaction with finances) than those who participated on unpaid, prevocational crews for four months.

These studies also noted that satisfaction was higher among persons who were placed more quickly. While the relationship may be causal, with shorter time to placement leading to job satisfaction, it also is possible that both outcomes (higher satisfaction and shorter time to placement) are associated with lower levels of functional impairment. This bears further investigation, especially to determine whether *any* individuals with mental illness need lengthy prevocational assessment and preparation periods and, if so, which persons, and how to target them.

Needs and Effects With Special Populations

Along with normalization of employment for persons with psychiatric disabilities has come recognition of diversity among this clientele. Increasing awareness of how gender, race, and age affect the employment outcomes of those with psychiatric difficulties has spurred interest in these groups.

Women. The focus on women stems from recent research on female clients with mental illness and their comparative outcomes with men. A study of employed and unemployed mental health consumers (Fabian, 1989) found highest satisfaction among employed men and lowest satisfaction among employed women. This latter finding has been attributed to the multiple roles that women, more often than men, are expected to fill while employed such as domestic and child rearing responsibilities (Fabian, 1989). Indeed, rehabilitation needs specific to parents with psychiatric disabilities (especially women) are poorly understood (Mowbray, Oyserman, & Ross, 1995). In a similar vein, Holstein and Harding (1992) argue that most level of functioning assessments fail to adequately measure the stress associated with women's greater likelihood of multiple roles. This failure to assess more than the formal work role misses symptoms and stressors associated with child care, housework, and family care. This, in turn, may contribute to less accuracy in research on women mental health consumers.

Research concerning the impact of gender on employment outcomes is inconclusive. Early research reported a lower proportion of women employed at significantly lower income than men (Test & Berlin, 1981). A follow-up study of 260 women six months after discharge from psychiatric hospitalization (Goering, Cochrane, Potasznik, Wasylenki, & Lancee, 1988) found no differences in employment status for men and women, but found that women were more likely to be employed in clerical or sales positions, while men were more likely to work in skilled or semi-skilled occupations. Other studies have found that gender was not a significant predictor of earnings, once other factors such as marital and parental status had been controlled (Cook & Rosenberg, 1994; Razzano & Cook, 1994). However, several studies across many different types of disabilities have shown that, as a group, women with disabilities have significantly lower employment rates and lower salaries than their male counterparts (Danek, 1992; Menz, Hansen, Smith, Brown, Ford, & McCrowey, 1989; Vash, 1982).

Victims of Abuse. The prevalence of childhood and ongoing abuse among persons (mostly, but not exclusively, women) with disabilities is just now receiving attention in research and service systems in this country (Carmen, Rieker, & Mills, 1984; Muenzenmaier, Meyer, Struening, & Ferber, 1993; Gill, Kirschner, & Panko Reis, 1994; Grothuas, 1985).

Clinical and anecdotal information suggests that many disabled survivors of abuse have extreme difficulty in securing and maintaining employment (Murphy, 1993; Raudenbush & Wilson, 1994). Unfortunately, how clients' abuse histories impede their attempts to secure employment often go unrecognized in community-based programs such as rehabilitation agencies, vocational training programs, and community mental health centers (Den Herder & Redner, 1991; Murphy, 1993).

Ethnicity. Several studies suggest that client ethnicity influences employment outcomes. In a discriminant function analysis of 653 clients in a psychosocial rehabilitation transitional employment program (Cook & Razzano, 1995), minority participants (80% of whom were African American) were significantly less likely than their white counterparts to graduate from transitional employment program placements into competitive employment. In multivariate models predicting hourly salary and job level (Cook & Roussel, 1987), Caucasians earned significantly more and achieved higher level jobs than did minorities (predominantly African Americans), even when characteristics such as work history, illness history, and demographic features were controlled.

If ethnic minority clients receive lesser benefits from vocational rehabilitation efforts, they may be more dissatisfied with the jobs they obtain through these services. It is perhaps not surprising, therefore, that higher life satisfaction was found among unemployed versus employed minority mental health consumers in one study (Fabian, 1989), while the opposite was true among Caucasian consumers.

Youth With Emotional and Behavioral Disorders. Increasing attention has been focused on transition-aged youth with emotional and behavior disorders. This has stemmed from federal policy initiatives to decrease service fragmentation and overutilization of inpatient services and to improve standards of mental health care for children and adolescents (Collins & Collins, 1990; Weithorn, 1988). Additional impetus has been provided by the passage of recent legislation mandating the transition of youths, ages 16 through 21, with disabilities from school into employment or postsecondary school programs (Cook, Jonikas, & Solomon, 1992; Will, 1985; Wermuth & Cook, 1992). In a number of statewide follow-up studies of special education students after high school, youth with severe emotional disturbances and behavior disorders had poorer outcomes than comparison groups (Mithaug, Horiuchi, & Fanning, 1985; Neel, Meadows, Levine, & Edgar, 1988). The challenges of comprehensive service delivery to this population stem from the need to coordinate several large systems of care, including mental health, education, and rehabilitation.

In 1987, the Office of Special Education Programs of the U.S. Department of Education and U.S. Congress mandated the National Longitudinal Transition Study of Special Education Students (Wagner, 1989). This study, conducted by SRI International, is producing the first national information about the secondary and postsecondary experiences of youth with disabilities, including those classified with severe emotional disturbance (Wagner, 1989). Results thus far indicate that among twelve types of disabilities, youth with severe emotional disturbances had the highest proportion of high school dropouts, the highest proportion of students with one or more failing grades, and the fourth lowest percentage of students in postsecondary education (higher only than students with multiple disabilities, those who are deaf/blind, and mentally retarded). The most recent data from this study (Wagner, 1993) indicate that severely emotionally disturbed youth made fewer gains in employment and had more unstable work histories than all other subgroups.

In addition to poor outcomes for youth classified as severely emotionally disturbed and/or behavior disordered, the SRI research revealed poorer results for female than male youths with disabilities. Earlier follow-up studies of special education students (Mithaug & Horiuchi, 1983) found that females were less likely to be working, to have received bonuses for working, or to have left a job to take a better one. This has been confirmed in the National Longitudinal Transitional Study. Female respondents were less likely to be working full-time or to be earning more than $6 an hour and less likely to see friends frequently or be involved in groups (Wagner, 1993). Findings regarding gender differences among the severely emotionally disturbed and behavior disordered subgroups specifically have not yet been published.

Education-Based Integration Services

Need for Higher/Postsecondary Educational Training

Along with normalization of work as a goal for persons with mental illness has come a growing acceptance of postsecondary education and training for persons with psychiatric disabilities. Given the typical age of onset of severe mental disorders in the late teens and young adult years, education is a developmentally appropriate goal for many mental health consumers (Cook, Solomon, Farrell, Koziel, & Jonikas, 1997). But, beyond this has come the recognition that many persons are forced into entry-level employment because more satisfying career changes are not possible without continuing education and support (Cook, Jonikas, & Solomon, 1992).

In one study of people with schizophrenia, over a third (35%) had attempted formal education, while less than a tenth (9%) had completed their course of study (Navin, Lewis, & Higson, 1989). There is evidence that many adults with psychiatric disabilities need remedial work in reading and mathematics, along with ongoing supports for attempting mainstream college or vocational/technical training. Among all incoming clients for 2 years at an urban psychosocial program, reading levels were at the ninth grade and math levels were at the eighth grade equivalent, despite the fact that 90 percent of these rehabilitation recipients had graduated from high school and their average number of years of education was above grade twelve (Cook, Wessell, & Dincin, 1987). Screenings of students with psychiatric disabilities entering a supported education program (described below) from the same urban psychosocial agency found that over half the students had reading and mathematical computation skills below the 12th grade level (Cook & Solomon, 1993). Postsecondary education, however, is seldom suggested for persons with psychiatric disabilities, even though it is a service commonly used in the rehabilitation of persons with physical and communication disabilities (Unger, 1994).

Effectiveness of Supported Education

Outcome studies have confirmed the usefulness of postsecondary education, or "supported education" approaches (Unger, 1994), that include academic supports along with mental health services (Jacobs & Glater, 1993; Ryglewicz & Glynn, 1993). These programs typically offer remedial and preparatory education, counseling and advocacy, and ongoing support for a variety of educational and case management needs. One study of 68 supported education students and a group of matched individuals receiving identical clinical but no educational services found that supported education participants were significantly more likely than the comparison group to return to college and return as full-time students (Hoffman & Mastrianni, 1993). A follow-up study of 52 supported education participants found significant increases over baseline were in college class enrollment, competitive employment, and self-esteem (Unger, Anthony, Sciarappa, & Rogers, 1991). A third outcome study of 102 supported education students from a psychosocial rehabilitation agency found that 78 percent of the participants were employed during the program and showed significant increases in both hourly wages and number of hours worked per week (Cook & Solomon, 1993). Compared to their scores at pretest, these individuals also had significantly higher self-esteem and coping mastery after participating in the program.

As with employment, postsecondary education involves the cooperation of silent partners such as faculty, administrators, and other students. Several programs have explored the role of postsecondary faculty education to address the highly negative stereotypes about students with psychiatric disabilities discovered among this group of educators (Jacobs & Glater, 1993; Wolf & DiPietro, 1992). Results of one field-test of a faculty in-service training for working with psychiatrically disabled students revealed that the training significantly improved knowledge about persons with mental illness and enhanced positive attitudes toward these students (Cook, Yamaguchi, & Solomon, 1993).

Influence of Other Public Policies on Community Integration

There is increasing awareness that research focused solely on individual influences is insufficient for understanding the rehabilitation outcomes of persons with psychiatric disabilities. A better understanding is needed of the relationship between work outcomes and the political economy of disability and related health and social welfare benefits (Estroff, Zimmer, Lachicotte, Benoit, & Patrick, 1996). Now that Medicaid and Medicare are available to Social Security Insurance and Social Security Disability Insurance recipients respectively, and given that private sector jobs held by persons with psychiatric disabilities often have inadequate health insurance coverage, consumers may be pressured toward unemployment or underemployment as a way to maintain a standard of living *and* a standard of health care. Moreover, the growth of managed care as a mechanism for controlling rising health and mental health care costs has potential implications for persons who are both medically indigent *and* rely on public monies for psychiatric treatment and medication. Thus, there are important research questions regarding how public policies affect income supports and health care provisions and the relationship of these to employment opportunities and outcomes.

Social Security Policies

This growing recognition is coupled with recent studies indicating that the number of psychiatrically disabled Social Security Insurance and Social Security Disability Insurance beneficiaries is increasing at a higher rate than total program growth, especially in the 30- to 50-year-old age group (National Academy of Social Insurance, 1994). Among those who receive *both* Social Security Insurance and Social Security Disability Insurance (an especially needy population), over one-third are persons with mental disorders. Recent expansion of Social Security Insurance and Social Security Disability Insurance eligibility criteria for persons with mental illness (Goldman & Gattozzi, 1988), and expanded Medicaid and Medicare reimbursement policies for services, such as case management and psychosocial rehabilitation (Adams, Ellwood, & Pine, 1989), have created incentives for Social Security Insurance and Social Security Disability Insurance enrollment. Also influencing this trend have been efforts to educate consumers, their families, and providers about entitlements and how to access them (MacDonald-Wilson, 1992).

A small body of research has examined the relationship between receipt of entitlements and employment status, as well as other features among persons with mental disorders. In a ten year follow-up of sheltered care residents (Segal & Choi, 1991), Social Security Insurance recipients were as likely to be employed as were nonrecipients, yet recipients were more likely to reside in sheltered care, to have less support from friends and family, and to have spent less time in psychiatric hospitals. A study by Massel and colleagues (1990) found a surprising degree of similarity in some types of work capacity between Social Security Insurance recipients and nonrecipients with psychiatric disabilities; however, work tolerance and job performance were significantly lower in the recipient group. In a study of vocational rehabilitation involving job-seeking skills training (Jacobs et al., 1992), Social Security Insurance recipients were significantly less likely to become employed or enter job training than nonrecipients. The authors suggested that the poorer outcomes among the recipient groups were linked to their poorer work histories and greater illness severity and chronicity.

Multivariate Modeling. Multivariate statistical analyses have the potential to provide a more comprehensive understanding of the interconnections between work and benefits. Estroff and colleagues (1996) followed 169 people for 32 months to develop a multivariate model predicting the likelihood of application for Social Security Insurance/Social Security Disability Insurance and recipiency outcomes. As the number of days worked in the prior 6 months increased, the likelihood of applying for benefits decreased, yet there were no significant differences in application by work pattern (full time/part time). Yet, logistic regression analysis found that variables other then employment were predictive of application. The probability of application was higher for those who were financially dependent on their families, defined their financial situations as being worse than those of same-aged peers, were more demoralized, felt more dependent on significant others, saw themselves as more submissive, spent a greater number of days in hospitals, and were more functionally impaired.

A multivariate study of 1,634 male Vietnam-era veterans (Rosenheck, Frisman, & Sindelar, 1995) found differences in likelihood and nature of employment were related to the *amount of monthly benefits* the men were receiving. Veterans who received Veteran's Administration work compensation of less than $500 a month were no less likely to work or earn less money than those who were denied these benefits (and presumably had no disincentive). However, when controlling for illness status, functional impairment, and traditional labor force predictors such as ethnicity and education, veterans whose compensation was greater than $500 per month were significantly less likely to work and earned significantly less than all groups of eligibles. Each additional $100 in compensation (above $500 a month) was found to be associated with a 2.1 percent reduction in the proportion of employed veterans, one less hour worked per week, and $1,100 less earned per year. On the other hand, veterans with psychiatric disabilities who received work benefits were no less likely to be employed than their counterparts with nonpsychiatric impairments. These studies suggest that the relationship between disability payments and employment activity is a complex one bearing further investigation using advanced multivariate modeling approaches.

Managed Care

Another line of research has examined the impact of managed care on rehabilitation service delivery and outcomes for individuals with psychiatric disabilities. The potential impact of managed care on rehabilitation service delivery is enormous. The gains made in some states through the recent expansion of Medicaid to cover psychosocial rehabilitation and case management services are threatened by the tendency of fully integrated health plans to view the need for mental health treatment as less compelling than physical health care (Brodey, Quirk, Dagadakis, Koepsell, & Tucker, 1995). Here, the notion of parity for mental and physical health care becomes important. Some advocates argue that inclusion of mental health services in a single capitated premium would erode these gains. To avoid this, many argue for a carve-out approach in which spending levels for mental health are maintained and access is ensured (Hoge, Davidson, Griffith, Sledge, & Howenstine, 1994).

Others argue that rehabilitation services often do not fare well in capitation programs. For example, data from the Rochester, New York, capitation study (Reed, Hennessy & Babigian, 1995) indicate that the largest gaps in financing were in nonreimbursable mental health services such as case management and rehabilitation. However, some cost containment strategies may have a positive impact on rehabilitation outcomes if they improve clinical care in the community. One study of a mental health care reform initiative that shifted funds from hospital to community-based care and implemented cost containment in Kansas (Rapp & Moore, 1995) found that a significantly higher proportion of discharged patients from the "reformed" catchment area were employed full-time or in vocational training compared to their counterparts in unreformed catchment areas, even though no additional monies were diverted to vocational services.

Implications for Developing Improved Service Delivery

Vocational Services

Research on service efficacy supports the superiority of models involving relatively rapid placement of persons with psychiatric disabilities into jobs. These strategies have been associated with higher client satisfaction and better work outcomes in several studies. Programs might emphasize rapid placement yet be mindful of clients' level of functioning, prior work history, and current support needs. For those clients who need or desire longer periods of preparation, there would be merit in developing **paid** job training placements, given findings that clients' cognitive and vocational performance are contingent upon the learning environment as well as the quality of rewards offered (Bell, Milstein, &Lysaker, 1993; Green, Satz, Ganzell, & Vaclav, 1992). Priority should be given to the pace individual clients set in their own rehabilitation planning, and services should be flexible enough to enable this.

Given findings demonstrating the need for vocational services longitudinally, programs should offer ongoing, as-needed, workplace-based job supports and assistance. This might involve using mobile job support workers and job coaches who provide these services for as long as people need them. It may also involve using natural supports available through co-workers, family, friends, Employee Assistance Programs, and professional trade organizations. The use of self-help and peer-delivered services is another research-supported strategy that bears replication in a variety of settings. These approaches should include conducting assessments of the natural supports available for each client and capitalizing on these when designing service plans. Findings indicate that vocational performance deteriorates over time without assistance, and this suggests that more attention should be paid to designing long-term vocational services than has previously been the case in program planning.

As described previously, one efficacy study suggests that vocational services provided by mental health consumers offer significant advantages over traditional vocational rehabilitation services. This study joins a series of studies supporting the efficacy of consumer-delivered services in a number of rehabilitation areas including case management and residential services. Programs should explore ways to hire mental health consumers to deliver vocational services and other supports to their peers. Another strategy would be to add vocational rehabilitation services to the array of services offered by consumer-run drop-in centers (e.g., for resume writing, interviewing skills, job searching). Finally, preliminary anecdotal evidence points to the promise of developing consumer-run businesses and using economic development approaches to vocational rehabilitation. This can be done in a variety of ways ranging from totally consumer-run operations to businesses operated under the auspices of service-delivery programs. These approaches might be desirable in rural settings where unemployment is high for everyone and creative job development approaches are necessary. These locally tailored options have the additional advantage of providing improved vocational opportunities for people of color, women, and youth, who experience specific and intractable barriers to equal employment that need to be addressed through environmental manipulation as well as through client-level skills training and supports.

Findings confirming the complex relationships between employment outcomes and factors such as self-esteem and quality of life suggest that job development efforts should focus not only on entry-level jobs but on jobs that are esteem-enhancing, dignifying, and rewarding, as well as financially remunerative. Entry-level jobs are not cited as desirable by most mental health consumers. Service providers should regularly assess and discuss each client's job satisfaction and consider it in all vocational service planning.

For women, programs should offer groups or training in time management and in juggling diverse roles and responsibilities. Ways of avoiding stress and burnout associated with women's multiple roles should be taught to clients. Programs should provide on- and/or off-site day care services to their women (and men) parents, so that clients can pursue job training and community placements. Services sensitive to the diverse needs of racial and ethnic minority clients should be offered in culturally appropriate settings by culturally indigenous staff.

Educational Services

Several studies suggest that notable proportions of persons with psychiatric disabilities need remedial education as well as postsecondary services and supports. Programmatic development should focus on integrating postsecondary and supported education services (including counseling and advocacy) into ongoing vocational programs. Also provided should be remedial training in reading, mathematics, and working with computers. These services should be provided by providers knowledgeable about the effects of psychiatric symptoms and medications on academic performance, stress related to school pressures, and methods for working with faculty and administrators of postsecondary institutions. On-site learning supports should make full use of student-driven reasonable accommodations as mandated by the Americans with Disabilities Act.

Services should be designed to assist clients to pursue funding from their local state offices of rehabilitation, which are sources of funding for college and vocational training. Supports should also be available to clients for accessing services from college or university programs for students with disabilities. Training and education are needed for postsecondary faculty, administrators, and students about mental illness and psychiatric disability. Another strategy supported by research is to hire consumers to provide remedial education, training, and support to their student peers. The use of nondisabled students and faculty to offer mentoring and other forms of natural support to students with disabilities could transfer this rehabilitation technology to the postsecondary service realm.

Public Disability Policy

Research suggests that fear of loss of benefits and related health and mental health coverage influence clients' work motivation and outcomes. While this is true for individuals with many different types of disabilities, it is especially true for those with psychiatric disabilities given the lack of parity in insurance coverage of mental health and medical health care and the subsequent need to rely on Medicaid. Keeping this in mind, all vocational planning and service delivery should be organized in such a manner that incentives for employment are maximized.

Vocational staff should assess and consider the disincentives to work presented by each client's current and future benefits eligibility and recipiency situation. This would involve training consumers and staff about Social Security Administration regulations and policies so that they could use such information in vocational service planning. Vocational rehabilitation services should include assistance to clients in applying for individual work incentives and Plans for Achieving Self-sufficiency (PASS) through which employment disincentives can be reduced.

The Social Security Administration should consider experimenting with alternatives to current policies by establishing research-demonstrations that separate Social Security Insurance/Social Security Disability Insurance eligibility from Medicaid eligibility and rigorously evaluate these trial programs for their effects on outcomes, client satisfaction, and cost.

Implications for Future Directions in Research

Relevant to Vocational Services

The field of vocational rehabilitation for persons with psychiatric disabilities is characterized by tremendous potential. Until recently, however, the growth of new approaches has been hindered by a lack of valid, reliable knowledge about effective vocational practices. Future studies should build upon the currently existing knowledge base to address subsequent questions arising from efforts to implement these new findings.

Given evidence that speedy placement produces more positive outcomes, it is important to be able to predict when mental health consumers will need extended prevocational or generic job skills training. Studies suggest that the prevocational phases of most models should be examined to determine for which persons, if any, this type of job preparation is useful. The demoralization hypothesis should be explored along with further research on job satisfaction and self-esteem among employed individuals.

A better understanding is also needed of the role of natural supports in vocational outcomes for persons with psychiatric disabilities. Given their needs for ongoing support, coupled with shrinking service delivery dollars, it may be necessary to use friends, family, coworkers, and supervisors to offer long-term employment supports to persons with psychiatric disabilities. Along with this, more research is needed on the utilization of peer-providers (individuals with disabilities) as vocational staff, as well as the effectiveness and efficacy of consumer-run businesses in promoting higher employment rates and quality of life for persons with mental illness.

Also identified in prior studies for further research attention are needs of and quality outcomes among people of color, women, and youth. In particular, differential outcomes among men and women, as well as among and between different minority populations, must be studied in order to shed light on methods for improving vocational outcomes for these special populations. Especially for survivors of abuse, more empirical investigations of unique barriers to employment and independent living are greatly needed. Gaps exist in current knowledge regarding what rehabilitation professionals can do to better address these needs and barriers, so that disabled abuse survivors are able to return to competitive community employment and independent living.

Research in this field is characterized by small sample sizes and the need to collect data longitudinally over many months. Some federal agencies have begun to address these methodological challenges by launching research-demonstration initiatives using longitudinal, multisite research designs. These designs address problems such as the need to examine model effectiveness across different regions of the country and populations of people.

In addition to randomized studies, it is important to apply the methods and types of statistical analysis used in survey research on labor force behavior in the general population (Cook, Bond, Hoffschmidt, Jonas, Razzano, & Weakland, 1994). These studies involve taking account of regular labor market features such as the unemployment rate and local economy of a program, thereby viewing persons with psychiatric disabilities as subject to the same labor forces as the nondisabled population (Cook & Razzano, 1995).

Relevant to Educational Services

As the field begins to look beyond entry-level employment for persons with psychiatric disabilities, there is a need for knowledge about how to help these individuals further their educations. Efficacy studies of newly

BEST COPY AVAILABLE

developed supported education models are needed, as are studies of the models' effectiveness across different racial and ethnic groups and clients with different levels of academic preparation. Given the evidence reviewed here supporting the need for remedial work among some groups of rehabilitation clientele, further attention should be directed to the nature of preparation required for postsecondary success.

More research is needed on the attitudes of postsecondary faculty and administrators toward students with psychiatric disabilities, given previously cited evidence that such students are not accepted in the classroom. The field would benefit from a better understanding of such attitudes, how education and in-service training can improve these attitudes, and whether this process influences behavior toward students and their ultimate success in postsecondary environments.

Very little is known about how often and to what extent postsecondary education is used by state vocational rehabilitation clientele with mental illness and how their access and outcome rates compare to those of clientele with other disabilities. Given claims in the literature of underutilization of this service for persons with mental illness, more information is needed. If authorization of this service is found to be significantly lower among clients with psychiatric disabilities, controlling for other factors, the reasons for this difference (e.g., stigma, lack of funding, lack of postsecondary support services, etc.) should be identified and explored.

It would be of great benefit to know whether increased education and training have the same payoff in terms of money earned for persons with mental illness as for persons with other disabilities and nondisabled populations. That is, do mental health consumers obtain the same return on their educational investment as other groups? This question has been studied for nondisabled women and minority workers and this methodology could be applied in the area of psychiatric disability as well.

Relevant to Employment and Public Disability Policy

Research on public policies regarding managed care and public entitlements has identified several suggestive leads that should be followed in future studies. This involves increasing our understanding of the ways in which changes in public policies influence access to rehabilitation services, entitlement income, health care, and employment. More multisite and statewide comparison studies are needed to address the effects of policy change at both macro and client levels. Also needed are explorations of ways in which capitated approaches to mental health care financing have both direct and indirect effects on rehabilitation and work outcomes for persons with psychiatric disabilities.

Since client choice is a cornerstone of the Rehabilitation Act reauthorization (Furlong-Norman, 1993), preservation of choice in rehabilitation and clinical services under managed care systems is a topic worthy of intense research scrutiny. At no earlier time in history has the right of disabled individuals to choose and direct their own service delivery and rehabilitation planning been so clearly affirmed. The potential of managed care to erode this right exists in the ways in which qualified providers are chosen, services are authorized, capitation rates are computed, and eligibility is defined for persons with psychiatric disabilities and, thus, must be carefully studied. On the other hand, managed care approaches also have much to offer persons with mental illness to the extent that they focus attention on services emphasizing rehabilitation and use of community rather than inpatient forms of clinical treatment. Finally, ways in which cost containment enhances rehabilitation outcomes, as found in the Kansas mental health reform study cited above, should be the subject of future research attention.

References

Adams, E., Ellwood, M., & Pine, P. (1989). Utilization and expenditures under Medicaid for Supplemental Security Income disabled. *Health Care Financing Review, 11*(1), 1-24.

Arns, P., & Linney, J. (1995). Relating functional skills of severely mentally ill clients to subjective and societal benefits. *Psychiatric Services, 46*(3), 260-265.

Arns, P., & Linney, J. (1993). Work, self, and life satisfaction for persons with severe and persistent mental disorders. *Psychosocial Rehabilitation Journal, 17,* 63-79.

Beall, M. (1992). *Virginia Mental Health Consumers Association Commissioners Guidance Questionnaire: Survey results.* Falls Church, VA: Virginia Mental Health Consumers Association.

Bell, M., Milstein, R., & Lysaker, P. (1993). Pay as an incentive in work participation by patients with severe mental illness. *Hospital and*

Community Psychiatry, 44, 684-686.

Bond, G., Dietzen, L., McGrew, J., & Miller, L. (1995). Accelerating entry into supported employment for persons with severe psychiatric disabilities. *Rehabilitation Psychology, 40,* 75-94.

Brodey, B., Quirk, M. P., Dagadakis, C., Koepsell, T., & Tucker, G. J. (1995). Mental health benefit design: Striving to achieve parity in Washington state. *Psychiatric Services, 46*(11), 1123-1125.

Campbell, J., Schraiber, R., Temkin, T., & ten Tusscher, T. (1989). *The well-being project: Mental health clients speak for themselves.* San Francisco, CA: The California Department of Mental Health, Office of Prevention.

Carmen, E., Rieker, P. P., Mills, T. (1984). Victims of violence and psychiatric illness. *American Journal of Psychiatry, 141*(3), 378-383.

Collins, B., & Collins, T. (1990). Parent-professional relationships in the treatment of seriously emotionally disturbed children and adolescents. *Social Work, 35,* 522-527.

Cook, J. A. (1995). Research on psychosocial rehabilitation services for persons with psychiatric disabilities. *Psychotherapy & Rehabilitation Research Bulletin, 4,* 5-11.

Cook, J. A., Bond, G. R., Hoffschmidt, S. J., Jonas, E. A., Razzano, L., & Weakland, R. (1994). *Assessing vocational performance among persons with severe mental illness: A handbook of clinical and research assessments.* Chicago, IL: Thresholds National Research and Training Center on Rehabilitation and Mental Illness.

Cook, J. A., Jonikas, J. A., & Solomon, M. L. (1992). Models of vocational rehabilitation for youths and adults with severe mental illness: Implications for AMERICA 2000 and ADA. *American Rehabilitation, 18*(3), 6-11.

Cook, J. A., & Pickett, S. A. (1995). Recent trends in vocational rehabilitation for persons with psychiatric disabilities. *American Rehabilitation, 20*(4), 2-12.

Cook, J. A., & Razzano, L. (1995). Discriminant function analysis of competitive employment outcomes in a transitional employment program for persons with severe mental illness. *Journal of Vocational Rehabilitation, 5,* 127-139.

Cook, J. A., & Razzano, L. (1992). Natural vocational supports for persons with severe mental illness: Thresholds supported competitive employment program. In L. Stein (Ed.), *New directions in mental health services: Innovations in mental health services, 56,* (pp. 23-42). San Francisco: Jossey-Bass.

Cook, J. A., & Rosenberg, H. (1994). Predicting community employment among persons with psychiatric disability: A logistic regression analysis. *Journal of Rehabilitation Administration, 18*(1), 6-22.

Cook, J. A., & Roussel, A. E. (1987, August). *Who works and what works: Effects of race, class, age, and gender on employment among the psychiatrically disabled.* Paper presented at the American Sociological Association Annual Meetings, Chicago, Illinois.

Cook, J. A., & Solomon, M. L. (1993). The community scholar program: An outcome study of supported education for students with severe mental illness. *Psychosocial Rehabilitation Journal, 17*(1), 84-97.

Cook, J. A., Solomon, M. L., Farrell, D., Koziel, M., & Jonikas, J. A. (1997). Vocational initiatives for transition-age youths with severe mental illness. In S. W. Henggeler & A. B. Santos (Eds.), *Innovative approaches for difficult-to-treat populations* (pp. 139-163). Washington, DC: American Psychiatric Press, Inc.

Cook, J. A., Wessell, M., & Dincin, J. (1987). Predicting educational levels of the severely mentally ill: Implications for psychosocial program directors. *Psychosocial Rehabilitation Journal, 11*(1), 23-37.

Cook, J. A., Yamaguchi, J., & Solomon, M. L. (1993). Field-testing a postsecondary faculty in-service training for working with students who have psychiatric disabilities. *Psychosocial Rehabilitation Journal, 17*(1), 157-169.

Danley, K. S., Rogers, E. S., MacDonald-Wilson, K., & Anthony, W. (1994). *Supported employment for adults with psychiatric disability: Results of an innovative demonstration project.* Boston: Center for Psychiatric Rehabilitation, Boston University.

Danek, M. M. (1992). The status of women with disabilities revisited. *Journal of Applied Rehabilitation Counseling, 23,* 7-13.

Den Herder, D., & Redner, L. (1991). The treatment of childhood sexual trauma in chronically mentally ill adults. *Social Work,* 50-57.

Drake, R. E., Becker, D. R., Biesanz, J. C., Torrey, W. C., McHugo, G. J., & Wyzik, P. F. (1994). Rehabilitative day treatment vs. supported employment: I. Vocational outcomes. *Community Mental Health Journal, 30*(5), 519-532.

Estroff, S. E., Zimmer, C., Lachicotte, W. S., Benoit, J., & Patrick, D. L. (1996). "No other way to go": Pathways to disability income applications among persons with severe and persistent mental illness. In R. Bonnie & J. Monahan (Eds.), *Mental disorder, work disability, and the law.* Chicago, IL: University of Chicago Press.

Fabian, E. S. (1992a). Longitudinal outcomes in supported employment: A survival analysis. *Rehabilitation Psychology, 37,* 23-35.

Fabian, E. S. (1992b). Supported employment and the quality of life: Does a job make a difference? *Rehabilitation Counseling Journal, 36,* 84-87.

Fabian, E. S. (1989). Work and the quality of life. *Psychosocial Rehabilitation Journal, 12,* 39-49.

Fairweather, G. W., Sanders, D. H., Maynard, H., Cressler, D. L., & Bleck, D. S. (1969). *Community life for the mentally ill: An alternative to institutional care* (pp. 199-237). Chicago, IL: Aldine Publishing Company.

Fergus, E. O., Bryant, B., & Balzell, A. (1989). *The Lodge society: An update on Michigan's outcomes.* Unpublished manuscript. Lansing, Michigan: Michigan State University, Ecological Psychology Program.

Fisher, D. (1994). New vision of healing: A reasonable accommodation for consumers/survivors working as mental health service providers. *Psychosocial Rehabilitation Journal, 17*(3), 67-81.

Forte, J. A. (1991). Operating a member-employing therapeutic business as part of an alternative mental health center. *Social Work, 16*(3), 213-223.

Fountain House. (1985). *Evaluation of clubhouse model community-based psychiatric rehabilitation: Final report to the National Institute of Handicapped Research [Contract No 300-84-0124].* Washington, DC: National Institute of Handicapped Research.

Furlong-Norman, K. (1993). Rehabilitation Act Amendments of 1992: Implications for people with psychiatric disabilities. *Community*

Support Network News, 9, 1-3.

Gill, C. J., Kirschner, K. L., & Panko Reis, J. (1994). Health services for women with disabilities: Barriers and portals. In A. Dan (Ed.), *Reframing women's health: Multidisciplinary research and practice* (pp. 357-366). Thousand Oaks, CA: Sage Publications.

Goering, P., Cochrane, J., Potasznik, H., Wasylenki, D., & Lancee, W. (1988). Women and work: After psychiatric hospitalization. In L. L. Bachrach & C. C. Nadelson (Eds.), *Treating chronically mentally ill women* (pp. 45-63). Washington, DC: American Psychiatric Press.

Goldman, H., & Gattozzi, A. (1988). Balance of powers: Social security and the mentally disabled, 1980-1985. *Milbank Quarterly, 66*(3), 531-551.

Green, M. F., Satz, P., Ganzell, S., & Vaclav, J. F. (1992). Wisconsin Card Sorting Test performance in schizophrenia: Remediation of a stubborn deficit. *American Journal of Psychiatry, 149*, 62-67.

Grothuas, R. S. (1985). Abuse of women with disabilities. In S.E. Browne, D. Connors, & N. Stern (Eds.), *With the power of each breath: A disabled women's anthology* (124-129). Pittsburgh, PA: Cleis Press.

Harp, H. (1991). A Crazy Folks Guide to Reasonable Accommodation and "Psychiatric Disability." Burlington, VT: The Center for Community Change Through Housing and Support.

Hatfield, B., Huxley, P., & Mohamad, H. (1992). Accommodation and employment: A survey into the circumstances and expressed needs of users of mental health services in a northern town. *British Journal of Social Work, 22*, 61-73.

Hoffman, F. L., & Mastrianni, X. (1993). The role of supported education in the inpatient treatment of young adults: A two-site comparison. *Psychosocial Rehabilitation Journal, 17*, 109-119.

Hoge, M. A., Davidson, L., Griffith, E. E. H., Sledge, W. H., & Howenstine, R. A. (1994). Defining managed care in public-sector psychiatry. *Hospital and Community Psychiatry, 45*(11), 1085-1089.

Holstein, A. R., & Harding, C. M. (1992). Omissions in assessment of work roles: Implications for evaluating social functioning and mental illness. *American Journal of Orthopsychiatry, 62*, 469-474.

Jacobs, E., & Glater, S. (1993). Students, staff, and community: A collaborative model of college services for students with psychological disabilities. *Psychosocial Rehabilitation Journal, 17,* 201-209.

Jacobs, H. E., Wissusik, D., Collier, R., Stackman, D., & Burkeman, D. (1992). Correlations between psychiatric disabilities and vocational outcome. *Hospital and Community Psychiatry, 43,* 365-369.

Kaufmann, C. L. (1994, October). *Long-term employment supports.* Paper presented at the First Annual National Research Seminar on Work: Establishing an Ongoing Dialogue, Philadelphia, PA.

Kaufmann, C. L., Roth, L. R., & Cook, M. (1992). *The self-help employment center project (CSP Services Research Grant).* Rockville, MD: Center for Mental Health Services.

Kaufmann, C. L., Ward-Colasante, C., & Farmer, J. (1993). Development and evaluation of drop-in centers operated by mental health consumers. *Hospital and Community Psychiatry, 44,* 675-678.

Laird, M., & Krown, S. (1991). Evaluation of a transitional employment program. *Psychosocial Rehabilitation Journal, 15*(1), 3-8.

MacDonald-Wilson, K. (1992). Using Social Security work incentives for people with psychiatric disability. Center for Psychiatric Rehabilitation at Boston University, *Community Support Network News, 8*(4), 6-7.

Massel, H., Keith, R. P., Liberman, J., Mintz, H. E., Jacobs, T. V., Rush, C. A., Giannini, B., & Zarate, R. (1990). Evaluating the capacity to work of the mentally ill. *Psychiatry, 53,* 31-43.

McCormack, J. (1992). *Interim report on consumer-operated projects: 1991-92.* Philadelphia, PA: Division of Continuing Education, Medical College of Pennsylvania.

Menz, F. E., Hansen, G., Smith, H., Brown, C., Ford, M., & McCrowey, G. (1989). Gender equity in access, services, and benefits from vocational rehabilitation. *Journal of Rehabilitation, 55,* 31-40.

Mithaug, D. E., & Horiuchi, C. N. (1983). *Colorado statewide follow-up survey of special education students.* Denver, CO: Colorado Department of Education.

Mithaug, D. E., Horiuchi, C. N., & Fanning, P. N. (1985). A report on the Colorado statewide follow-up survey of special education students.

Exceptional Children, 51, 397-404.

Mowbray, C. T., Oyserman, D., & Ross, S. (1995). Parenting and the significance of children for women with a serious mental illness. The *Journal of Mental Health Administration, 22*(2), 189-200.

Muenzenmaier, K., Meyer, I., Struening, E., & Ferber, J. (1993). Childhood abuse and neglect among women outpatients with chronic mental illness. *Hospital & Community Psychiatry, 44*(7), 666-670.

Murphy, P. (1993). *Making the connections: Women, work, disability, and abuse.* Orlando, FL: Paul M. Deutsch Press, Inc.

National Academy of Social Insurance. (1994, March). *Rethinking disability policy: Preliminary status report of the Disability Policy Panel.* Washington, DC: Author.

Navin, C., Lewis, K., & Higson, P. (1989). The role of formal education in the rehabilitation of persons with chronic schizophrenia. *Disability, Handicap and Society, 4,* 131-143.

Neel, R. S., Meadows, N., Levine, P., & Edgar, E. B. (1988). What happens after special education: A statewide follow-up study of secondary students who have behavioral disorders. *Behavioral Disorders, 13,* 209-216.

Rapp, C. A., & Moore, T. D. (1995). The first 18 months of mental health reform in Kansas. *Psychiatric Services, 46*(6), 580-585.

Raudenbush, D. J., & Wilson, K. (1994). *Adults with a multiple personality disorder: Implications for employment.* Presentation at the Annual Conference of the International Association of Psychosocial Rehabilitation Services, Albuquerque, NM.

Razzano, L., & Cook, J. A. (1994). Gender and vocational assessment: What works for men may not work for women. *Journal of Applied Rehabilitation Counseling, 25,* 22-31.

Reed, S. K., Hennessy, K. D., & Babigian, H. M. (1995). Setting capitation rates for comprehensive care of persons with disabling mental illness. *Psychiatric Services, 46*(2), 127-129.

Rogers, E. S., Anthony, W. A., Toole, J., & Brown, M. A. (1991). Vocational outcomes following psychosocial rehabilitation: A longitudinal study of three programs. *Journal of Vocational*

Rehabilitation, 1(3), 21-29.

Rosenheck, R., Frisman, L., & Sindelar, J. (1995). Disability compensation and work among veterans with psychiatric and nonpsychiatric impairments. *Psychiatric Services, 46*(4), 359-365.

Ryglewicz, H., & Glynn, L. (1993). Project Change revisited: An experiment in entry or reentry into college. *Psychosocial Rehabilitation Journal, 17*, 69-81.

Schultheis, A. M. M., & Bond, G. R. (1993). Situational assessment ratings of work behaviors: Changes across time and between settings. *Psychosocial Rehabilitation Journal, 17*(2), 107-119.

Segal, S. P., & Choi, N. (1991). Factors affecting SSI support for sheltered care residents with serious mental illness. *Hospital and Community Psychiatry, 42*(11), 1132-1137.

Sherman, P. S., & Porter, R. (1991). Mental health consumers as case management aides. *Hospital and Community Psychiatry, 42*(5), 494-498.

Test, M. A., & Berlin, S. B. (1981). Issues of special concern to chronically mentally ill women. *Professional Psychology, 12*, 136-175.

Trainor, J., & Tremblay, J. (1992). Consumer/survivor businesses in Ontario: Challenging the rehabilitation model. *Canadian Journal of Community Mental Health, 11*(2), 65-71.

Unger, K. V. (1994). Access to educational programs and its effect on employability. *Psychosocial Rehabilitation Journal, 17*, 117-126.

Unger, K. V., Anthony, W. A., Sciarappa, K., & Rogers, E. S. (1991). A supported education program for young adults with long-term mental illness. *Hospital and Community Psychiatry, 42*, 838-842.

Uttaro, R., & Mechanic, D. (1994). The NAMI consumer survey analysis of unmet needs. *Hospital and Community Psychiatry, 45*(4), 372-374.

Vash, C. L. (1982). Employment issues for women with disabilities. *Rehabilitation Literature, 43*, 198-207.

Wagner, M. (1993). Trends in post-school outcomes of youths with disabilities: Findings from the National Longitudinal Study of Special Education Students. *Interchange, 12*(4), 2-4.

Wagner, M. (1989). *The transition experiences of youth with disabilities: A report from the National Longitudinal Transition Study.* Menlo Park, CA: SRI.

Warner, R., & Polak, P. (1993). *An economic development approach to the mentally ill in the community.* Boulder, CO: Mental Health Center for Boulder County.

Weithorn, L. A. (1988). Mental hospitalization of troublesome youth: An analysis of skyrocketing admission rates. *Stanford Law Review, 40,* 773-837.

Wermuth, T. R., & Cook, J. A. (1992). The impact of federal legislation on the transition of individuals with psychiatric disabilities from school to adult life. Center for Psychiatric Rehabilitation at Boston University, *Community Support Network News, 8,* 10-11.

Will, M. C. (1985). Opening remarks. *Journal of Adolescent Health Care, 6,* 79-83.

Wolf, J., & DiPietro, S. (1992). From patient to student: Supported education programs in southwest Connecticut. *Psychosocial Rehabilitation Journal, 15,* 61-68.

Authors' Note: For further information contact Judith A. Cook or Jessica A. Jonikas, Research and Training on Psychiatric Disability, University of Illinois at Chicago, 104 South Michigan Avenue, Suite 900, Chicago, IL 60603-5901. Phone: 312-422-8180, TDD: 312-422-0706, Fax: 312-422-0740, E-mail: cook@tezcat.com or jonikas @psych.uic.edu

The Potential and Promise of Employment Programming For Persons With Serious Mental Illness

Richard C. Baron

Matrix Research Institute
Rehabilitation Research and Training Center
on Vocational Rehabilitation and Mental Illness

There is both good news and bad news about employment programming for persons with a serious mental illness, based on a series of related studies undertaken recently by the Research and Training Center on Vocational Rehabilitation and Mental Illness. A collaborative initiative of Matrix Research Institute and the University of Pennsylvania Department of Psychiatry's Center for Mental Health Policy and Services Research, the MRI/Penn Research and Training Center (Penn RTC) was established in 1993 by the National Institute on Disability and Rehabilitation Research with a mission to "heighten the priority attached to employment for persons with serious mental illness." That mission has been the focus of a series of six research and six training projects. Four of those research efforts are discussed briefly here because they highlight the importance of a renewed focus on employment programming for this population. This paper will share current research data in terms of the goods news, as well as bad news, for persons with serious mental illness, along with the author's personal opinion for improved service delivery.

The bad news is that startlingly few people with serious mental illness avail themselves of the services of the state/federal vocational rehabilitation program. The good news in these research findings and supported in an array of other studies is that those people who do access employment programs are frequently quite successful in moving toward their employment goals.

Bad News: *Within the public mental health system, only 1.6 percent of those with a serious mental illness are also clients of the state/federal vocational rehabilitation system.* As part of the overall research agenda of the MRI/Penn RTC, researchers at Penn's Center for Mental Health Policy and Services Research acquired and integrated data sets from both the City of Philadelphia Office of Mental Health's management information system and the R-900 data from the Commonwealth of Pennsylvania's Office of Vocational Rehabilitation for the time period of 1990 to 1993. The City's mental health data are actually composed of a variety of individual elements, providing an ongoing and comprehensive portrait of the individuals served by the City and its contract agencies. The R-900 data permit one to examine each individual client's progress from referral through closure within the Office of Vocational Rehabilitation system.

Over the four-year period covered by the data, analysis reveals that only 1.6 percent of clients with a serious mental illness in Philadelphia were served by the state's Office of Vocational Rehabilitation. These data are presented in Table 1. That is, of nearly 32,000 persons with a serious mental illness seen by the City of Philadelphia over a four-year period, only approximately 500 were known to the state's vocational rehabilitation system. Comparable data for *all* persons with a mental illness served by the City Office of Mental Health reveal still less participation in the state/federal vocational rehabilitation program, as only 0.6 percent received services.

Table 1. Comparison of Mentally Ill and Severely Mentally Ill City Population With OVR Data in Philadelphia

	SMI Admissions Philadelphia	SMI in OVR Data	Mentally Ill Admissions Philadelphia	Mentally Ill in OVR Data
1990	16,000	183	50,000	214
1991	5,333	83	16,667	98
1992	5,333	118	16,667	133
1993	5,333	114	16,667	134
Total	31,999	498	100,000	579
% of Total		1.6%		0.6%

Although no reliable data are available on the overall employment rate of the specific sample of persons with a serious mental illness studied here, a wide range of other studies has repeatedly found that unemployment among persons with a serious mental illness ranges from 75 percent to 95 percent, a stark figure for a largely working-age population. With such a large percentage of persons unemployed, it is reasonable to seek explanations for the dramatic contrast between the abstract demand for and the actual supply of employment programming.

A wide range of tentative explanations, each requiring considerably more research, can be offered. First, it should be noted, mental illness itself can pose for many people a significant barrier to effective and productive work. Many of the symptoms of mental illness and the side-effects of the psychotropic medications used to treat mental illness can lead to lethargy, confusion, short attention spans, disruptive hallucinations, etc. Although both the negative and positive symptoms of mental illness are increasingly amenable to treatment through a wide range of psychotropic medications, for many people the symptoms that make productive work more difficult continue to persist. However, while the symptomatic expression of mental illness has for some time been seen erroneously as a reliable indicator of an inability to work, more current research suggests that symptoms by themselves do not eliminate work potential and that other barriers play a more significant role in suppressing successful utilization of vocational rehabilitation programs.

There is, for instance, the strong reluctance of mental health professionals to refer clients with a serious mental illness to vocational rehabilitation programs. Psychiatrists, psychologists, social workers, case managers, and residential workers are famously discouraging about the individual client's employment potential, often made clear both in conversations with clients and in the service planning documents that stress clinical goals to the exclusion of vocational activity. Family members also often express opposition to a client's determination to seek a career, for fear that either vocational rehabilitation or work itself may lead toward new frustrations and disappointment.

Furthermore, a variety of problems within vocational rehabilitation systems often contribute to reluctance among the client or the case manager to even engage in the process: the inaccessibility of the vocational rehabilitation system, the extended evaluation process, the frequent interruption in intakes and eligibility determinations due to funding shortages, and the historic wariness within vocational rehabilitation toward clients with a history of mental illness. These problems are compounded by the paucity of effective vocational rehabilitation programs to which a more diligent vocational rehabilitation counselor might refer clients with psychiatric histories.

Perhaps the most frequently mentioned disincentive to engagement in a vocational rehabilitation process remains the perception that the Social Security Administration, through the regulations that govern the SSI and SSDI benefit packages, operates in a fashion that makes work economically disastrous. The "myths" surrounding SSA's approach to the SSI recipient or SSDI beneficiary who returns to work are mostly false but nonetheless powerful. While many people believe that a working individual with a disability winds up with less total cash in-pocket, this is rarely the case. While it is widely presumed that medical benefits (Medicaid/Medicare) are withdrawn from working clients, for those on SSI and/or SSDI, medical benefits are usually readily continued.

Re-entering the SSA system if a job is lost is seen as impossible, but is frequently quite likely. In fact, the Work Incentive Provisions of the Social Security Act make it possible for most individuals to benefit financially from working, to sustain their medical insurance, and to re-establish eligibility relatively rapidly in the instance of job loss. However, it should be noted that this is generally more true for the SSI recipient than the SSDI beneficiary. Further, it does appear that many persons are unaware of the work incentives and that few mental health clinicians, vocational rehabilitation personnel, or the nation's SSA Claims Representatives are sufficiently familiar with the system's complex and arcane rules to provide assistance, guidance, or reassurance. Indeed, most people are too scared to seek employment, and the individuals they rely upon for encouragement are often scared for them.

For all of the above reasons, vocational rehabilitation for persons with serious mental illness remains a very low priority among mental health and vocational rehabilitation professionals, both family and consumer groups, government policy makers, and the new army of behavioral managed care planners shaping the next century's mental health delivery systems. This is true despite accumulating evidence of the positive impacts of work upon the client's income, identity, and illness and despite the findings that even the most fundamental work-focused programs can have a substantially positive impact on the working careers of clients. The critical importance for those in the field to re-prioritize employment outcomes is suggested.

Good News: Employment programs can have a substantial impact on the employment outcomes of clients with a serious mental illness. There are currently two competing understandings of the impact of employment programming for persons with a serious mental illness. On the one hand, the state/federal vocational rehabilitation system has consistently reported poorer employment outcomes for persons with a serious mental illness than for persons with other disabilities. In addition, it is still true that in local Offices of Vocational Rehabilitation, the referral of a client with a serious mental illness is discouraged. Vocational rehabilitation counselors often view the symptomatic expression of the client's illness as evidence of a lack of motivation, as a permanent condition unamenable to rehabilitative correction, and/or as an unacceptable trait to potential employers.

On the other hand, a relatively new generation of employment programs specifically targeted to serve persons with a serious mental illness has been created. Noteworthy programs include transitional employment services (TE) and supported employment services (SE). Each of these two services options has consistently and successfully rehabilitated approximately 50 percent of the clients serve by vocational rehabilitation. Both TE and SE service options tend to emphasize the importance of rapid placement into the real world of work for real world pay, rather than extensive testing and sub-minimum wage preparatory and/or evaluative activity in sheltered workshops. In addition, TE and SE tend to provide intensive on-the-job as well as off-the-job support during the client's initial months at work. Furthermore, both tend to offer a level of continuing support that is based upon the needs of the client to sustain long-term attachment to the competitive labor market.

One of the research projects undertaken by the MRI/Penn RTC was designed to increase the rate of referral to such programs and thereby to substantially increase the rate of participation in the state/federal vocational rehabilitation program beyond the 1.6 percent level for persons with a serious mental illness. The project sought to develop increased motivation both to engage in the rehabilitation process and to work in competitive jobs among persons with a serious mental illness who were served by a typical community mental health center. MRI placed two direct service personnel, known as employment specialists, at a local community mental health center (CMHC). Their job was to work in individual sessions and in small group settings with a random sample of new CMHC intakes. Their employment outcomes were compared to a randomly selected control group. Experimental clients were encouraged to consider employment goals, explore the types of jobs available, increase their understanding regarding the demands that work would make on their lives, learn more about the financial incentives and disincentives entailed in seeking employment, and consider a wide range of work-focused goals. Work focused goals included: a referral to the Office of Vocational Rehabilitation; the completion of education; volunteer activity; independent employment seeking; assisted job seeking; or work itself.

At the end of two years, 72.2 percent of clients in the experimental group that received the support of an employment specialists had made substantial career-focused changes in their lives, as compared with 3.1 percent of clients in the control group (Figure 1).

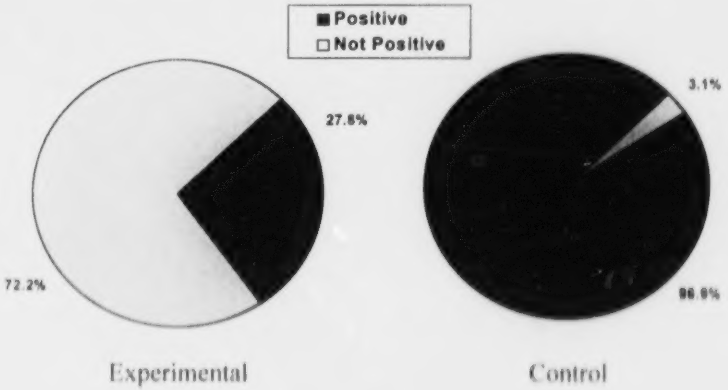


Figure 1. Vocational Outcomes From Employment Specialist Project

In total, 13 clients (33.3%) were competitively employed, 21 clients (53.9%) were in vocational rehabilitation programs, and 5 clients (12.8%) were engaged in volunteer work. Among the individuals in the control group, who were not receiving the services of the employment specialists, only one was employed and only one entered the vocational rehabilitation system.

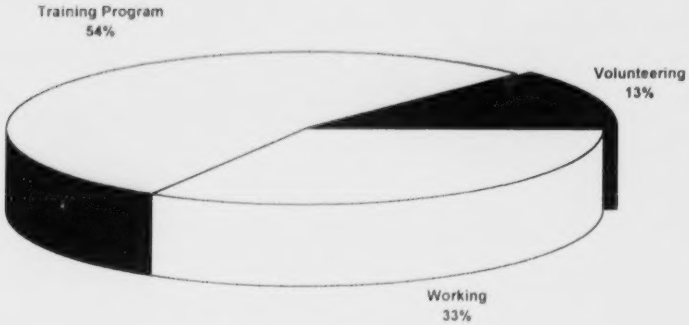


Figure 2. Description of Vocational Outcomes From Employment Specialist Project

Corollary findings reveal that it was the presence of the employment specialists rather than any individual client characteristics that distinguished successful outcomes in the experimental group from the control group. Yet, this area is in need of further exploration. For the researchers and staff engaged in the project, however, it seemed clear that control group clients had not received any substantial or sustained attention to employment goals from psychiatrists or social workers, family members or case managers, and that in the absence of such encouragement, little progress toward employment could be made. On the more positive side, it also seemed clear that even the most fundamental of interventions, such as the straightforward engagement with a 'helper' who both believed in the individual's employment potential and made realizing that potential a priority, could have a substantial impact on the client's willingness to engage in and succeed at the rehabilitation process. This suggests that one way to prioritize employment is to identify employment specialists within mental health settings.

Good and Bad News: *Although clients who are dually diagnosed with both a serious mental illness and a substance abuse disorder are less likely than those with only a serious mental illness to receive vocational rehabilitation services, counselors who focus on employment do improve* *the vocational activity of dual diagnosis clients.* However, in general, little is known about the work status of clients with co-occurring disorders of severe mental illness and substance abuse.

To learn more, the MRI/Penn RTC interviewed clients (N=105) in three different programs and across two different states to develop an initial portrait of the vocational status of clients who are dually diagnosed. Each of the three agencies that hosted our interviewers was already engaged in some level of vocational activity within their overall programs. The three sites included: a large psychosocial rehabilitation agency with pre-vocational programs, vocational training, and post-employment supports and that was funded in part by the Office of Vocational Rehabilitation in Pennsylvania; a small not-for-profit agency with some pre-vocational activities funded by Pennsylvania's mental health program; and continuous treatment teams operated by a large non-profit agency in Delaware that were partially funded by the state vocational rehabilitation system.

First, it should be noted that of the general caseload of clients in these programs, 28.6 percent carried dual diagnoses of mental illness and substance abuse, as indicated in Figure 3.

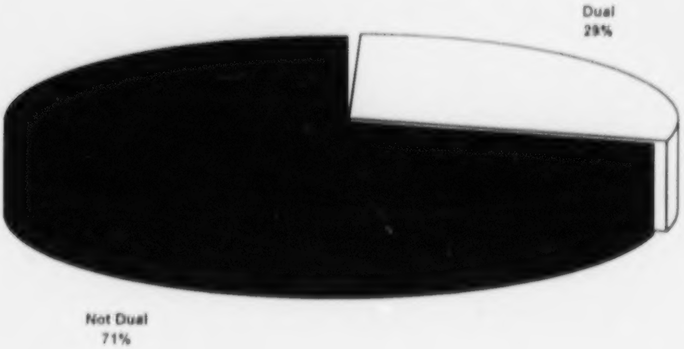
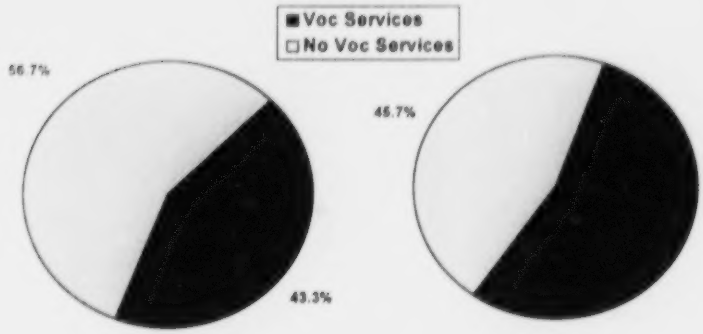


Figure 3. Dual Diagnoses Study
Percentage of Clients With and Without Dual Diagnosis

This percentage did not include those clients who may have either occasionally or more frequently used or abused substances but did not yet have a specific substance abuse diagnosis. This suggests that substance use among persons with a serious mental illness is still higher than the figures indicated. However, even in these settings, in which there was a reasonable priority established for employment programming and in which employment services were an integral part of the agencies' activities, persons with dual diagnoses were significantly less likely to be engaged in vocational services than other single-diagnosis clients. Figure 4 shows the breakdown of participation in vocational vs. non-vocational services.



DD Clients

All Clients

Figure 4. Dual Diagnosis Study
Percentage Receiving and Not Receiving Services

Our study also found that the most significant predictor of vocational status for individuals with dual diagnoses was whether their counselors had a vocational goal for them. That is, those counselors who raised vocational issues with the client, who worked with the client to establish a vocational goal in the overall treatment plan, and who worked with the client on vocational issues were significantly more likely to see their clients become engaged in the vocational rehabilitation process. While this may seem tautological, solutions must be found for both the relative rarity with which vocational goals are explicitly established for persons with dual diagnoses and the general unresponsiveness of clients when the possibility of work is realistically addressed.

Good News: *Job accommodations that make it possible for people with a serious mental illness to work successfully are both straightforward and inexpensive.* One of the perceived barriers to employment of persons with serious mental illness is the documented concern of employers about offering positions to persons with special needs who have acknowledged that they have a history of mental illness or current emotional problems requiring treatment. Passage of the Americans with Disabilities Act (ADA) has focused attention on the need for employers to provide reasonable accommodations to individuals with disabilities of all kinds, including those with a psychiatric disability. The ADA makes discrimination of persons with disabilities in the areas of hiring, promotion, or firing illegal. Perhaps the most important ramification, considered to be associated with the requirement, is that accommodations must be offered that do not pose an "undue hardship" on the employer. Not surprisingly, final definitions of "reasonable accommodation" and of "undue hardship" will await judicial action. In the meantime, those individuals with psychiatric disabilities, their job coaches, and employers are all questioning the potential impact of the ADA on their relationships at work.

In an effort to answer some of the questions being posed, the MRI/Penn RTC undertook a study of current job accommodations. The study involved a survey that examined the informal arrangements currently existing among persons with a serious mental illness and their employers as well as relationships that have developed without adjudication in the courts. The study examined three groups: job coaches, clients, and employers. First, a mailed survey (N=194) was sent to job coaches in transitional and supported employment programs serving persons with a serious mental illness. Second, respondent TE/SE job coaches put the surveyors in touch with the clients they had served over the last few years. The project then held "focus group" discussions with clients (N=137) to learn more about their perspectives on job accommodations. Third, with the permission of the clients, project staff completed telephone interviews (N=88) with their employers. The three data gathering exercises were completed in ten states across the country, one state in each of the ten RSA regions.

Of immediate interest is the nature of current job accommodations.

Figure 5[1] provides an overview of the frequency with which particular accommodations are currently utilized. The most frequently used accommodations are the availability of a job coach on-site at the request of the client, the permission for the client to call the job coach when needed, and the job coach's work with supervisors to ensure that more "positive supervision" is provided to the client.

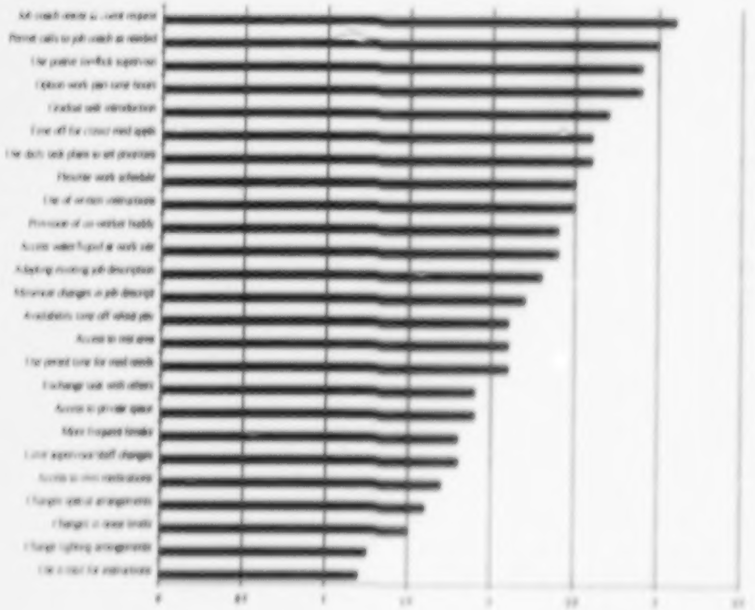


Figure 5. Frequency of Job Accommodation Arranged by Employers for Their Employees With Psychiatric Disabilities Reported by Job Coaches and Job Developers (n=194) Average Rank (1=never, 2=sometimes, 3=often, 4=always)

---

[1] Figures 5, 6, and 7 are based on a National Study on Job Accommodations for People with Psychiatric Disabilities (1996) sponsored by the National Institute on Disability and Rehabilitation Research's Rehabilitation Research and Training Center on Vocational Rehabilitation and Mental Illness (Grant #H133B30007) at Matrix Research Institute, Philadelphia, PA.

BEST COPY AVAILABLE

Additional job accommodations include the option to work part-time, the gradual introduction of tasks, time off for clinic or medical appointments, daily review of tasks, and flexible work schedules. These kinds of accommodations appear relatively straightforward and are reasonable approaches to managing the workplace that anyone, with or without a disability, might expect in difficult times.

Furthermore, the costs of accommodations are modest. Figure 6 provides, from the employer's perspective, a first-time cost assessment of integrating persons with disabilities into the competitive workplace. Most accommodations (58%) are provided at no cost at all and most others (32%) cost less than $100 on an annual basis. More expensive accommodations do occur, but only 7 percent cost between $101 and $500, and only 3 percent cost more than $500, on an annual basis.

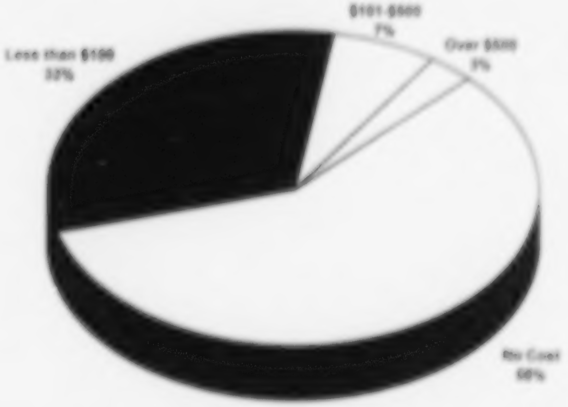


Figure 6. Job Accommodation Costs for a Typical Employee With Psychiatric Disabilities Reported by Job Coaches and Job Developers (n=194)

Finally, it should be noted that knowledge about the Americans with Disabilities Act and its provisions with regard to reasonable accommodations is quite limited. Those who participated in the focus groups, including persons with serious mental illness who are currently working, had little knowledge or understanding of the ADA. Figure 7 reports that a full 86 percent knew nothing about the Americans with

Disabilities Act in general nor the requirement for employers to provide a reasonable accommodation. In fact, both consumers and their job coaches reported that the accommodations made by employers were informally negotiated and agreed to without reference to the ADA. Both job coaches and consumers felt strongly that accommodations needed to be developed within a cooperative rather than an adversarial context, with little or no reference to the requirements of the law. There is clearly a need for far greater information and education about the ADA, even if the law is to serve only as the "social backdrop" for informal employer/employee discussions about accommodations.

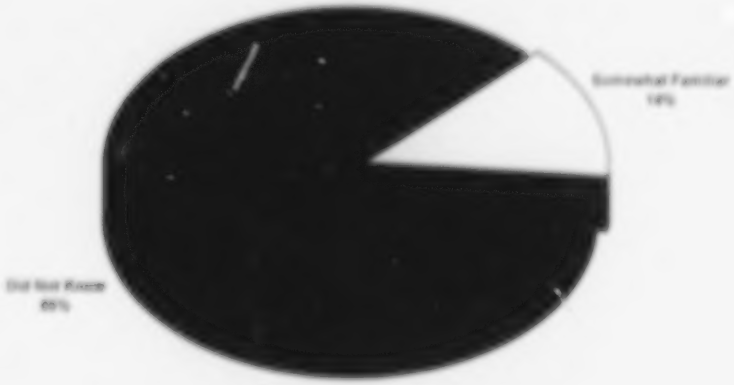


Figure 7. People With Psychiatric Disabilities Who Are Aware of Their Job Accommodations or the Americans with Disabilities Act (n=137)

Summary

A reasonable summary of these studies might stress the discouraging finding that it remains true, more than three decades following the establishment of community mental health programming and the emptying of the state hospitals of the thousands of people who did not need to be incarcerated there, that only a very small percentage of persons with serious mental illness are vocationally engaged. Unemployment remains the cultural norm for those who have experienced the impact of these debilitating illnesses. Fortunately, the field is learning more every day about the inherent potential of those with serious mental illness to work and the positive impact of encouraging clients to engage in the vocational rehabilitation process or in work. Work remains a fundamental goal for many people and one that the mental health and vocational rehabilitation systems (and the Social Security and Job Training systems) must not abandon on their behalf.

Author's Note: For further information contact Richard Baron, Director, Matrix Research Institute, 6008 Wayne Avenue, Philadelphia, PA 19144. Phone: 215-438-8200, Fax: 215-438-8337, TDD: 215-438-1506, E-mail: workmri@aol.com

American Indians With Disabilities: Maximizing Employment Opportunities

Priscilla Lansing Sanderson
and Catherine A. Marshall
Northern Arizona University
American Indian Rehabilitation
Research and Training Center

Of the approximately 2 million American Indians and Alaskan Natives residing in the United States, 26.9 percent report having a disability, and 11.7 percent between the age of 15 and 64 are reported to have a severe disability (Schacht, 1996). Significant challenges can occur when a vocational rehabilitation (VR) counselor or a job placement specialist attempts to place American Indians/Alaskan Natives with disabilities into employment. Preparation for employment is usually limited on Indian lands due to the lack of resources, minimal employment opportunities, poverty, and low educational levels. Problems in providing appropriate VR intervention can be compounded by cultural differences among the American Indian tribes, communication differences, beliefs, and varying acculturation levels.

Since its inception in 1983, the American Indian Rehabilitation Research and Training Center (AIRRTC) at Northern Arizona University has collected and published information on the barriers to employment experienced by American Indians with disabilities, as well as strategies in meeting their employment needs, both on and off Indian lands. Thus, while there are limited resources and employment opportunities on Indian lands, there are creative strategies, some described in this paper, that should assist VR counselors and job placement specialists in placing American Indians with disabilities in employment and in maintaining employment.

The People: American Indians and Alaskan Natives

There is much literature regarding the American Indian and Alaskan Native cultures--literature focusing on their histories, religions, languages, and folklore; the majority of this literature has been written by non-American Indian authors, with minimal understanding of the American Indian cultures. Less literature exists regarding the specific needs of American Indians and Alaska Natives in regard to current events--access to health care and human services, access to education, and access to employment. The majority culture is far more interested in the effects of peyote use in the Native American Church and acquiring yet one more kachina for the family room than in understanding the needs of American Indians dealing with diabetes, renal failure, amputations, and blindness.

The mission of the AIRRTC is to improve the quality of life of American Indians and Alaska Natives with disabilities through the conduct, research and training that a) results in culturally appropriate and responsive rehabilitation services, b) facilitates American Indian access to services, and c) increases the participation of American Indians in the design and delivery of rehabilitation services. Since its establishment in 1983 (with funding from the National Institute on Disability and Rehabilitation Research (NIDRR), the Office of Special Education and Rehabilitative Services, and the U. S. Department of Education) faculty and staff of the AIRRTC (from 1983-1988 called the Native American Research and Training Center) have addressed the vocational rehabilitation and independent living service needs of American Indian rehabilitation. The AIRRTC utilizes community-based American Indians as on-site research coordinators. Additionally, the AIRRTC employs American Indians and Alaska Natives with disabilities as research interviewers and involves them throughout the research process as members of project advisory committees. These strategies recognize the heterogeneity of American Indian nations and work to make a research project culturally relevant in the specific Indian community where the research is being conducted.

American Indian Demographics

Many American Indian nations refer to themselves in their native language as "The People," with individual American Indian tribes existing as separate, autonomous, sovereign nations. The 1990 Census reported that there are approximately 2 million American Indians, Eskimo, and Aleuts in the United States and that there are over 500 federally recognized tribes, as well as 36 state-recognized tribes. A tribe has been defined as "a system of social organization comprising several local villages, bands, districts, lineage's, or other groups and sharing a common ancestry, culture, language. and name" (Soukhanov, 1994, p.1232). It has been estimated that the American Indian population will reach 4.6 million by 2050 (U.S. Department of Commerce, 1993).

The AIRRTC published the *American Indian Population Statistics* in 1996, edited by Dr. Timothy Thomason. This document, based on the 1990 U. S. Census, specifies that there are 1,878,285 American Indians, 57,152 Eskimos, and 23,797 Aleuts. This total of 1,959,234 native people is an increase of 38 percent over the 1980 census of 1,420,285. The ten states with the largest American Indian, Eskimo, or Aleut populations are shown in Table 1. As Table 1 indicates, more than half the Indian population resides in just six states.

Table 1. Ten States With the Largest American Indian, Eskimo, or Aleut Population in 1990

Rank	State	Population
1	Oklahoma	252,420
2	California	242,164
3	Arizona	203,527
4	New Mexico	134,355
5	Alaska	85,698
6	Washington	81,483
7	North Carolina	80,155
8	Texas	65,877
9	New York	62,651
10	Michigan	55,638

Source: 1990 U.S. Census

The top ten largest tribes in terms of population are shown in Table 2. Each tribe has its own tribal membership criteria. Thomason (1996) explained that government agencies use different criteria, with at least four different definitions employed:

- Bureau of Indian Affairs: blood quantum must be at least one-fourth;

must be a member of a federally recognized tribe.

- Federal Department of Education: the person must be registered by a tribe.
- Bureau of the Census: self-identification (without verification).
- Tribal governments: usually based on blood quantum (the degree of blood quantum required varies widely among tribes. Navajo must be at least one-fourth; Cherokee must have a Cherokee ancestor, no matter how remote).

Table 2. Top Ten Largest Tribes

Rank	Tribe	Population
1	Cherokee	308,000
2	Navajo	219,000
3	Chippewa	104,000
4	Sioux	103,000
5	Choctaw	82,000
6	Pueblo	53,000
7	Apache	50,000
8	Iroquois	49,000
9	Lumbee	48,000
10	Creek	44,000

Source: 1990 U.S. Census

The top 10 reservations with the largest American Indian populations, as reported by the 1990 U.S. Census, are shown in Table 3. Interestingly, 6 of the top 10 reservations are located in Arizona, with the Navajo reservation, the largest populated reservation in the United States, being situated in Arizona, New Mexico, and Utah. O'Connell (1988) wrote that Native Americans are the only ethnic group where almost half of the population resides in rural areas. Currently, 22 percent of American Indian people reside on reservations and trust lands, while 11 percent reside in non-reservation rural areas (U.S. Department of Commerce, 1990). Of importance for VR counselors and administrators to understand is that over

50 percent of American Indians reside in *urban* areas instead of reservations, Alaskan Native villages, trust lands, missions, or rancheros.

Table 3. Ten Reservations With the Largest American Indian, Eskimo, or Aleut Population in 1990

Rank	Reservation	Population
1	Navajo, AZ-NM-UT*	143,405
2	Pine Ridge, SD*	11,182
3	Fort Apache, AZ	9,825
4	Gila River, AZ	9,116
5	Papago, AZ	8,480
6	Rosebud, SD*	8,043
7	San Carlos, AZ	7,110
8	Zuni, NM	7,073
9	Hopi, AZ*	7,061
10	Blackfeet, MT	7,025

* Includes Trust Lands

Source: 1990 U.S. Census

American Indian Educational Levels

> Very little is known about the contemporary educational experiences of American Indians, who often are ignored or placed in the category of "other" in most national education research. Although American Indians have a longer history in American education than any other minority group, not much is known about their participation rates and achievement levels, and what is known often is not encouraging. However, over the past three decades, American Indian leaders have made great stride in increasing educational opportunities, brightening a previously bleak picture. (O'Brian, 1992, p.1)

Although the "bleak picture is brightening," it is still true that the education of American Indians is underfunded on Indian lands, and there are very few American Indian/Alaska Native teachers. Resources are minimal to support special education and school-to-work transition programs. Thus, persons such as VR counselors interested in the needs of Indian people with disabilities, should explore establishing school-to-work transition programs on Indian lands and assist with program development so that students with disabilities can benefit.

Although there has been some improvement in educational attainments since the 1980 U. S. Census, American Indian students continue to have difficulty in accessing higher education. For example, while the 1990 U. S. Census reported that 66 percent of American Indians who are 25 years and older were high school graduates, compared to the 1980 Census that reported 56 percent graduated from high school, only about 9 percent attained a bachelor's degree or higher. The majority of American Indian students in high school or elementary school attend public schools; similarly, the majority of the American Indian students in higher education attend public universities, colleges, or community colleges.

However, the low retention rates of American Indian students in higher education has resulted in a variety of strategies to keep American Indian students in college. Some universities have established Native American student centers for their students to benefit from personal or academic counseling, test taking strategies, remedial education, and cultural activities. Another strategy that universities are undertaking is recruiting American Indian faculty. More than half (53%) of American Indian students attended a two-year college. Of those attending two-year colleges, 14 percent enrolled in a tribal college. There are 26 tribal colleges in the nation, but only 5 tribal colleges exist within the top 10 states (see Table 1) with the largest populations of American Indians (CA, AZ, NM, WA, MI). O'Brian (1992) wrote that bachelor degrees granted to American Indian students in 1989 were concentrated in business (20%), education (13%), social sciences (11%), engineering (7%), health sciences (6%), and psychology (5%).

American Indians With Disabilities

The Indian Health Service has had a profound effect on the health of American Indians since 1955, reducing infant mortality from 60 deaths per 1,000 births to 10 deaths per 1,000 in 1985 (Hodgkinson, 1992). There has also been a significant decrease in communicable diseases, such as tuberculosis. However, tremendous health problems continue to exist among Indian people. While broad generalizations, such as the finding that poverty is highly correlated with lower health status (Plantz & Stinson, 1986), may be useful in understanding the situations of some American Indians, a single health profile characterizing American Indians/Alaska

Natives cannot be developed due to the wide diversity among different nations as described earlier.

For more than a decade, the AIRRTC has documented the needs of American Indians with disabilities and the rate of disabling conditions. O'Connell (1988) reported that American Indians exhibited health-related problems at an earlier age than individuals from the general U.S. population, with the highest relative rates reported for the age group 15 through 35 years. Dr. O'Connell's statement in 1988 is applicable in 1996. In the first AIRRTC urban needs assessment that was conducted in Denver, Colorado (Marshall, Johnson, Martin, & Saravanabhaven, 1993), the authors wrote that the American Indian population in Denver "is one which has multiple disabilities" and provided examples of the disabilities represented in their respondents (see Table 4).

As the result of the Denver study, the following recommendations for change in service delivery were made (Marshall et al., 1993, p. 56):

1. *In-home outreach* to identify individual needs should be conducted by those agencies sincerely wishing to serve American Indians with disabilities. This outreach should be accomplished through the use of Indian case finders, and should be conducted under the auspices of a single agency, for example, an Indian health or social services agency, in order to avoid duplication of effort (emphasis added; see also, Marshall, Johnson, & Lonetree, 1993).

2. Case-management services should be available to ensure that basic needs are met. Interviewees consistently referred to problems with transportation and accessing basic health care such as dental services. They need very basic assistive devices such as glasses. Client advocates should provide case-management services through Indian service agencies.

3. Vocational rehabilitation services, which focus on the special needs of an aging work force with multiple disabilities, should be made available within the Indian community.

4. Increased employment opportunities must be made available. While 78% of those working (25% of the survey population, or 25 individuals) reported being satisfied with their current positions, increased levels of employment must be available to those who would want them.

Table 4. Percentage of Disabling Conditions Represented in Interviewee Population

Disabling Condition	Percent of Population
American Indian Illness (a)	7%
Amputation	4%
Arthritis	37%
Blindness/Visual Impairment	21%
Cancer	3%
Diabetes	33%
Eating Disorders	6%
Emotional Disorders	12%
Epilepsy	6%
Hearing Impairment/Deafness	10%
Heart Problems	16%
Lung Disorders	9%
Mental Retardation	1%
Multiple Sclerosis	3%
Neurological Impairment	6%
Orthopedic Disorders	14%
Polio	3%
Scoliosis	2%
Specific Learning Disability	2%
Spinal Cord Disorders	5%
Stroke	5%
Substance Abuse	20%
Other (b)	43%

Note. Multiple-response item. Total > 100%. On average, interviewees reported having approximately 2.8 disabling conditions. (a) Refers to conditions unique to American Indian cultures. (b) The count of "Other" may include more than one disabling condition. From *The Assessment of a Model for Determining Community-Based Needs of American Indians With Disabilities Through Consumer Involvement in Community Planning and Change* (p. 27), by C. A. Marshall et al., 1993, Flagstaff: Northern Arizona University, American Indian Rehabilitation Research and Training Center. Reprinted with permission.

In a study conducted by Sanderson, Schacht, and Clay (1996), the research team noted that the leading disabilities in referral status for independent living services were (a) quadriplegia, (b) cardiac and circulatory system conditions, (c) diabetes, (d) paraplegia, (e) deafness or hard of hearing, (f) emotional/mental disorders, (g) blindness or visual impairment, (h) amputation, and (i) arthritis. Multiple disabilities were noted. The research team further reported that the primary disabilities for eligibility planning were (a) quadriplegia, (b) paraplegia, (c) arthritis and/or rheumatism, (d) cardiac and circulatory system conditions, (e) amputation, (f) diabetes mellitus, (g) blindness/visual impairments, (h) deafness/hard of hearing, and (i) end-stage renal failure/genito-urinary conditions.

Work Force Participation

LaPlante, Kennedy, Kaye, and Wenger (1996) wrote that "according to 1995 data, 16.9 million working-age Americans, or 10.1 percent of the population aged 16-64, have a work disability--limitation in the amount or kind of work they are able to perform, due to a chronic condition or impairment" (p. 1). American Indians of both sexes have the highest unemployment rate of all ethnic groups (Plantz & Stinson, 1986). Some of the reasons given as to why unemployment is high for American Indians have included isolated locations, limited education, and limited economic activity and job opportunities on the reservation. The Bureau of Indian Affairs has suggested that unemployment may be as much as 5.47 times greater for American Indians than the general population (Bureau of Indian Affairs, 1989).

In summarizing U. S. Census Bureau data, Schacht (1996), AIRRTC researcher, reported that about one in four (26.9%) *American Indian/Eskimo/Aleut* persons in the labor force has a disability (see Table 3). In terms of *severe* disabilities, the *American Indian/Eskimo/Aleut* category reflects a similar percentage of disability when compared to *Blacks*.

Approximately 62,681 American Indians in the labor force between 16-64 years of age reported a work-related disability (U.S. Department of Commerce, 1990). Additionally, 105,585 American Indians with disabilities were *not* in the labor force. The 1990 U. S. Census further reported that 9,958 American Indians with disabilities in the labor force have mobility limitations, in comparison to American Indians with disabilities *not* in the labor force, 36,115 of whom reported mobility limitations. Schacht (1996) concluded that 7 percent of American Indians with disabilities were prevented from working because of a work disability.

Caution utilizing U. S. Census data is advised due to their self-report procedures and the underreporting of American Indians; however, the information provides a starting point for discussing American Indians with disabilities in the labor force on a national level. The AIRRTC advocates that needs be documented at the local level, and with full participation of community representatives to ensure the validity of results.

Table 5. Racial/Ethnicity for 15-64 Years of Age

1991-92 Race/Ethnicity	Persons 15-64 Years of Age	
	Severe Disability	**Overall Disability**
American Indian, Eskimo, or Aleut	11.7%	26.9%
Black	12.7%	20.8%
White	7.4%	17.7%
Hispanic origin	9.1%	16.9%
Asian or Pacific Islander	4.5%	[illegible]

Note: From *Demographics of American Indians With Disabilities,* by R. M. Schacht, 1996, Unpublished fact sheet. Flagstaff: Northern Arizona University, American Indian Rehabilitation Research and Training Center. Reprinted with permission.

Strategies for Improving Employment Outcomes

While economic restructuring is occurring in the United States, American Indian nations are also developing new tribal economic plans. These new plans often call for developing employment opportunities through strategies such as the recruitment of corporations to operate their businesses on tribal lands, the establishment of casinos, and the provision of financial incentives for self-employment. Thus while economic development is taking place on many reservations, historically, there has been minimal industry, with minimal opportunities for American Indians to be gainfully employed. Therefore, VR counselors need to be both innovative and culturally competent when developing the Individual Written Rehabilitation Plan (IWRP) in collaboration with the consumer (Marshall, Johnson, & Johnson, 1996; Marshall, Johnson, & Lonetree, 1993).

For example, in developing the IWRP, the VR counselor needs to consider what the consumer has been accomplishing, prior to applying for

VR services, that can be related to employment. At times, consumers may already be employed, but not in competitive employment--a consumer may already be working as an unpaid family worker, an artist (making arts and crafts for sale to tourists or for ceremonial purposes), a farmer, etc. The consumer that "stays at home" may be planting the family garden, thus producing food for the family; herding livestock; fishing (including repairing or netting fishing nets); babysitting, or helping extended family members. All of these activities have historically been a part of a reservation economic base and should be considered as employment experience by the VR counselor.

Practices That Affect Positive Employment Outcomes

Many of the competitive employment jobs on reservations are with tribal, state, or federal governments. VR counselors need to participate in initiating and reinforcing existing policies that provide for the hiring of American Indians and encourage the employment of American Indians with disabilities. Rehabilitation counselors can inform potential employers of the availability of rehabilitation engineering, job site accommodations, and well-trained vocational rehabilitation consumers at no cost to the employer. Additionally, VR counselors should assist American Indians with disabilities in maintaining their employment. A rehabilitation counselor who is successful will have a collaborative relationship with tribal employers.

Tribal Economic Plans

Tribal governments are typically charged with developing tribal economic plans that will attract business and industry to their reservations. VR counselors need to be actively involved in these development committees. These committees are aware of Indian land job markets; rehabilitation counselors can bring their expertise in job analyses, reasonable accommodation, and personnel need requirements to discussions regarding the employment of Indian people with disabilities. VR counselors can also educate tribal governments as to the successes of tribal VR programs throughout the country. For example, the Eastern Band of Cherokee Indians tribal VR (Section 130) program established a small business dedicated to matting and framing prints/posters; this business has resulted in employment and training opportunities for American Indians with disabilities (Marshall, 1996). The Eastern Band of Cherokee Indians VR (Section 130) program collaborated with the tribe on developing this small business on the reservation and works in collaboration with the state

VR agency to provide rehabilitation services.

Similarly, the Mississippi Band of Choctaw Indians VR (Section 130) program developed industrial and greenhouse training programs to benefit their consumers. The consumers accepted into the industrial training program receive training for employment in a tribal industry called the Chahta Enterprise that produces wire harness assemblies used in manufacturing automobiles. The greenhouse training program instructs consumers in planting crops and selling them in the community; the profits help pay consumers' wages.

In Arizona, the Arizona Rehabilitation Services Administration (RSA) collaborated with the Navajo Nation and the Navajo Nation Office of Special Education and Rehabilitative Services (OSERS), a Section 130 program. This collaboration resulted in an establishment grant from the Arizona RSA to the tribe to develop an industrial laundromat on the reservation. The laundromat's primary customer is the local Indian Health Service, including a community hospital with over 30 beds. In the past, the Indian Health Service contracted their laundry to a company located in Phoenix, Arizona over 300 miles from the hospital. The new industrial laundromat resulted in employment and training for the Navajo Nation OSERS consumers.

Subsistence and Self-Employment

The majority of Indian lands are located in rural, remote areas of the United States. In these areas, such as remote areas found in Alaska and many reservations across the United States, subsistence fishing, hunting, and farming are a significant part of family survival and tribal economics. Seekins (1997) has stated that:

> Rural areas of our nation often have marginal economies and may be more susceptible to shifts in the larger economy. For example, rural areas generally have smaller business establishments, lower rates of people in the labor force, higher rates of unemployment, lower levels of education, more limited resources, and they face marketing obstacles of scale and distance. Interestingly, rural areas have higher rates of self-employment.

In Alaska, innovative collaboration is underway with village elders knowledgeable in the skills of subsistence living. The village elders are being contracted with by rehabilitation providers in order to train consumers in these life/employment skills. VR counselors are able to correct, ameliorate, or circumvent the functional limitations of their consumers such that they are able to perform the required tasks. The consumers are then able to perform "suitable employment" in their village setting. In addition to contributing to the village community and to the survival of family and extended family, the consumer gains traditional skills that he/she can pass on to the next generation.

Tourism and Public Jobs

Most tribal lands are centers of native culture, art, spirituality, and a beautiful natural environment that are extremely attractive to tourists from around the world. American Indian tribes and VR counselors can assist their consumers by capitalizing on this potential tourist industry. Many public sector jobs such as construction, advertising, marketing, production, and sales can be developed through the use of the tourist industry. If the consumer desires to learn, or already makes home arts and crafts, purchasing crafts or silversmithing tools and other items necessary to make native arts, crafts, and jewelry could help in developing self-employment (Marshall, Johnson, & Lonetree, 1993). There are a number of places that consumers can sell their products: pow-wows, fairs, roadside markets, rodeos, traditional gatherings that allow public vendors to sell, etc. This type of placement allows consumers who wish to remain "at home," that is, on the reservation, in Alaska Native villages, or trust territories, to work without having to relocate to an urban area.

Government Employment

The Indian Health Service (IHS) and the Bureau of Indian Affairs (BIA) are usually the largest employers on reservations and nearby off-reservation land, and have influenced the development of population centers. For example, on the Navajo reservation, there are seven governmental locales around which major population growth has developed (O'Connell, Minkler, Dereschiwsky, Guy, & Roanhorse, 1992), including:

- Window Rock/Fort Defiance, Arizona: These two areas are governmental centers serving the Navajo Nation. Local economies include forest products and light manufacturing.
- Chinle/Many Farms, Arizona: These are the administrative (tribal and federal governments) centers for the central portion of the Navajo Reservation. They contain farming projects, BIA schools, public schools, and an IHS facility.
- Shiprock, New Mexico: This is a large agricultural center with some light manufacturing. It is the location for the Navajo Indian Irrigation Project, agency offices for the Navajo Tribe, and public schools.

- Crownpoint, New Mexico. This community has potential for uranium mining and is the center for the Eastern Navajo Agency.
- Tuba City, Arizona. A governmental center with an IHS facility, boarding school, public school, shopping center, and the Navajo Western Agency.

In 1989, the AIRRTC and IHS began collaboration on a research project entitled "A National Survey and Job Training Demonstration Model with Public Service Programs for Persons with Disabilities." The purpose of the project was to study practices regarding employing persons with disabilities with a major employer of American Indians, i.e., IHS. The IHS is a branch of the U. S. Public Health Service, responsible for treating acute illnesses for American Indians and Alaska Natives, both on and off Indian lands. Marshall, Longie, Miller, Cervantes, & Monongye (1990) reported that IHS employed a work force of approximately 15,000 people across the United States; the majority of employees were American Indian, yet, at the time the study began, the IHS had record of less than one percent being American Indians with disabilities. The Arizona RSA provided nine of their consumers as referrals to participate in the job training demonstration model at the Phoenix Indian Medical Center (PIMC). All nine referrals were American Indians with an average of more than one disability and were certified as having a severe disability by VR counselors. The Arizona RSA provided a job coach for the consumers while in training at the PIMC. The researchers reported that the job coach's time was used extensively during work hours and after work hours for emotional support. Table 6 reflects the employment outcome of this project.

Technology

Technology may assist with the medical rehabilitation and independent living of people with disabilities. When technology is prescribed and/or purchased for American Indians with disabilities, the rehabilitation counselors should be familiar with the home environment of their consumers. When an American Indian patient is being discharged from the hospital to his/her home, a home-site evaluation is of paramount importance. A home-site evaluation will determine what technology is required for the patient to be released appropriately from the hospital; it is also important to provide this service as a requirement for meeting the consumer's independent living needs. Additional "low" and high technology can be considered during vocational rehabilitation leading to the outcome of gainful employment.

Table 6. PIMC Trainee Training Summaries

Placement	Training Period	Duration	Reason for Exit	Status at End of Evaluation Project
Patient Business	9 months	3 months	Found job	Employed
Medical Records	6 months	3 months	Dropped out	Unemployed
Housekeeping	4 months	5 months	Completed trng	Emplyd (PMIC)
Housekeeping	4 months	1 month	Dropped out	Unemployed
Social Service	12 months	12 months	- - - - - - - - -	In training
Engineering	9 months	2 months	Found job	Employed
Medical Records	6 months	6 months	Completed trng	Emplyd (PMIC)
Housekeeping	4 months	4 months	Completed trng	Resigned from IHS emplymnt contract
Surgical Operations	6 months	5 months	- - - - - - - - -	In training

Note. Training Period refers to the prescribed length of training; Duration refers to the time the individual trainee actually spent training. All trainees began training in February 1993. From *A National Survey of Indian Health Service Employees and the Development of a Model job Training Demonstration Project: Identifying Work Opportunities for American Indians and Alaska Natives With Disabilities. Executive Summary* (p. 13), by C. A. Marshall et al., 1994. Flagstaff: Northern Arizona University, American Indian Rehabilitation Research and Training Center. Reprinted with permission.

VR counselors working with American Indians must be very familiar with "low" technology options--technology that works to enable people with disabilities to function independently, and, importantly, *technology that can be supported* in the home and community environment. For example, most people in the United States take in-door plumbing and electricity for granted, but for American Indians residing on Indian lands, these luxuries are often not available. Most Indian lands are located in rural, remote areas of a state where public sewers are not available either; the U. S. Department of Commerce (1995) reported that about one in five American Indian reservation households disposed of sewage by means other than a public sewer, septic tank, or cesspool. Outhouses, chemical toilets, and facilities in another structure such as a community center may be used. For example, in the Navajo and Hopi reservation households, around one-half lacked complete plumbing. According to the U. S. Department of Commerce (1995):

> When it comes to the prevalence of homes without complete indoor plumbing, visiting a reservation today is like going back in time. The 26 percent of American Indian owners on reservations lacking complete plumbing in 1990 was comparable to the 30 percent of all U. S. owners in 1950 (p.4).

High technology aids associated with toileting and other activities of daily living may simply be of no use where there is no running water or electricity; further, vendors may not be readily available to repair or modify high technology aids. Examples of low technology aids include wheelchair ramps, manual wheelchairs, hearing aids, and adaptive eating utensils. Finally, VR counselors need to be aware that there may be cultural issues related to the use of assistive devices, which extend, in some cases, to taboos. The VR counselor should consult with the consumer, family members, and the local tribal VR program before any technology is purchased to assist the consumer.

Discussion and Conclusions

The health, education, and employment statistics associated with American Indians and Alaska Natives support the need for rehabilitation professionals to (a) outreach in these populations; (b) work creatively with and demonstrate commitment to Indian communities in developing employment opportunities (for example, attend planning meetings on tribal economic development); and (c) communicate with tribal leaders regarding tribally appropriate and culturally appropriate rehabilitation service delivery. While not funded to engage in direct services such as job development and job placement, the AIRRTC has worked directly with Indian communities and consumer groups to identify the needs of American Indians with disabilities and to document these needs. In turn, communities and consumer groups have successfully used AIRRTC documentation and technical assistance to receive funding for direct service delivery.

The AIRRTC has also provided training to state VR administrators, counselors, and to the staffs of tribal VR programs. AIRRTC research studies have been included in the curriculum of rehabilitation counselor education programs and have been published in professional rehabilitation journals. Doctoral students in rehabilitation counselor education have gone on to replicate and/ or use AIRRTC research in their dissertations. At this time, a broad-based evaluation study of the impact of AIRRTC research and training on the vocational rehabilitation of American Indians with disabilities would be appropriate. However, such an evaluation study can not be accomplished without fiscal support and without a clear directive to state VR agencies to participate from the national Rehabilitation Services Administration. One state VR agency administrator stated that he did not believe ethnicity should be considered a factor in the delivery of VR services, placing barrier after barrier in front of the AIRRTC research team in terms of accessing the state agency data. Individual American Indian nations would have to give approval for participation in the evaluation research effort; yet data from these nations would be essential in terms of documenting the effects of AIRRTC rehabilitation-orientation training with, for example, tribal community health representatives. Follow-up studies should be conducted in all Indian communities and agencies where the AIRRTC has conducted research and training. For example, in the study conducted at the Phoenix Indian Medical Center and mentioned earlier in this paper, the hospital administrator, Rear Admiral Anna Albert has stated that the hospital has gone on to hire additional Indian people with disabilities. What has been the experience of these new employees? How have their families benefited? How has the hospital benefited?

It is doubtful that a VR counselor could successfully place an American Indian with a disability in employment without considerable support from the consumer's family, community, and employer. This may be particularly true if the VR counselor is working on a reservation or in a rural, remote area. This paper has identified several strategies for improving employment outcomes that the individual VR counselor can consider and implement. However, the counselor also needs the support of the VR agency administration to carry out the intense outreach and community involvement that AIRRTC research has indicated it needed. Only through research and training, working together with Indian communities, and with the support of agency administration can the VR counselor truly be successful in maximizing employment opportunities for the American Indian consumer.

References

Bureau of Indian Affairs (1989). *Indian service population and labor force estimates*. Washington, DC: U.S. Department of the Interior.

Hodgkinson, H. L. (1992). *The current condition of Native Americans* (Report No. EDD-RD-7). Charleston, WV: ERIC Digest, ERIC

Clearing House on Rural Education and Small Schools.

LaPlante, M. P., Kennedy, J., Kaye, H. S., & Wenger, B. L. (1996). Disability and employment. *Disability Statistics Abstract,* (11)1. U.S. Department of Education, National Institute on Disability and Rehabilitation Research (NIDRR).

Marshall, C. A. (Executive Producer). (1996). *Vocational opportunities of Cherokee* (Video, 10 minutes).

Marshall, C. A., Johnson, M. J., & Johnson, S. R. (1996). Responding to the needs of American Indians with disabilities through rehabilitation counselor education. *Rehabilitation Education.*

Marshall, C. A., Johnson, M. J., Martin, W. E., & Saravanabhaven, R. C. (1993). *The assessment of a model for determining community-based needs of American Indians with disabilities through consumer involvement in community planning and change* (Rev.ed.). Flagstaff: Northern Arizona University, American Indian Rehabilitation Research and Training Center. (Available from the American Indian Rehabilitation Research and Training Center, Institute for Human Development, Northern Arizona University, PO Box 5630, Flagstaff, AZ 86011).

Marshall, C. A., Johnson, S. R., & Lonetree, G. L. (1993). Acknowledging our diversity: Vocational rehabilitation and American Indians. *Journal of Vocational Rehabilitation, 3(1),* 12-19.

Marshall, C. A., Longie, B. J., Miller, J. F., Cerveny, L. K., & Monongye, D. (1994). *A national survey of Indian Health Service employees and the development of a model job training demonstration project: Identifying work opportunities for American Indians and Alaska Natives with disabilities. Executive summary.* Flagstaff: Northern Arizona University, American Indian Rehabilitation Research and Training Center. (Available from the American Indian Rehabilitation Research and Training Center, Institute for Human Development, Northern Arizona University, PO Box 5630, Flagstaff, AZ 86011).

O'Brian, E. M. (1992). American Indians in higher education. Research Briefs, (3)3. Washington, DC: Division of Policy Analysis and Research, American Council on Education.

O'Connell, J. C. (1988, April). *Research to practice: Using research in Native American communities to improve policies and practices* *related to educating adolescents who are disabled.* New Orleans, LA: Paper presented at the meeting of the American Educational Research Association.

O'Connell, J. C., Minkler, S., Deweshiwsky, M., Guy, E., & Roanhorse, T. (1992). Identifying unique challenges to the provision of rehabilitation services on the Navajo reservation. *Rural Special Education Quarterly (11)*2, 13-19.

Plantz, M. C., & Stinson, F. S. (1986). *Indian people in Indian lands, 1980.* Washington, DC: U. S. Department of Health and Human Services.

Sanderson, P. L., Schacht, R. M., & Clay, J. A. (1996). *Independent living outcomes for American Indians with disabilities: A summary of American Indian independent living consumer data.* Flagstaff: Northern Arizona University, American Indian Rehabilitation Research and Training Center. (Available from the American Indian Rehabilitation Research and Training Center, Institute for Human Development, Northern Arizona University, PO Box 5630, Flagstaff, AZ 86011).

Schacht, R. M. (1996). *Demographics of American Indians with disabilities.* Unpublished fact sheet. Flagstaff: Northern Arizona Un University, Institute of Human Development, American Indian Rehabilitation Research and Training Center. (Available from the American Indian Rehabilitation Research and Training Center, Institute for Human Development, Northern Arizona University, PO Box 5630, Flagstaff, AZ 86011).

Seekins, T. (1995). Self-employment as a rehabilitation option: Highlights of the 19th Mary Switzer Memorial seminar. *The Journal of Rehabilitation, 61(4), 66-68.*

Soukhanov, A. H. (Ed.). (1994). *Webster's II New Riverside University Dictionary.* (3rd ed.). Boston, MA: Riverside Publishing Company.

Thomason, T. (Ed.). (1996). *American Indian population statistics.* Flagstaff: Northern Arizona University, Institute for Human Development, American Indian Rehabilitation Research and Training Center. (Available from the American Indian Rehabilitation Research and Training Center, Institute for Human Development, Northern Arizona University, PO Box 5630, Flagstaff, AZ 86011).

U. S. Department of Commerce, Bureau of the Census. (1990). *Census of*

Population, Social and Economic Characteristics. CP-2-1. Economics and Statistics Administration. Washington, DC: Government Printing Office.

U. S. Department of Commerce, Bureau of the Census. (1993). *We the first Americans*. Economics and Statistics Administration. Washington, DC: Government Printing Office.

U. S. Department of Commerce, Bureau of the Census. (1995). *Statistical brief*. Economics and Statistics Administration. Washington, DC: Government Printing Office.

Author's Note: For further information contact Priscilla Sanderson, American Indian Rehabilitation Research and Training Center, Institute for Human Development, University Affiliated Program, Northern Arizona University, P. O. Box 5630, Flagstaff, AZ 86011. Phone: 520-523-5581, Fax: 520-523-9127, TDD: 520-523-1695, E-mail: Priscilla.Sanderson@nau.edu

Leadership For America: The Howard University Scholar Training Model

---

Sylvia Walker and
Reginald Rackley
Howard University
Rehabilitation Research and Training Center
for Access to Rehabilitation and Economic Opportunity

The mission of the Howard University Research and Training Center for Access to Rehabilitation and Economic Opportunity (HURTC) is to implement research and training activities that facilitate the employment and attainment of maximum potential by persons from diverse racial/ethnic groups (including African Americans, Hispanic Americans, Native Americans, Americans of Asian descent, and Pacific Islanders). This article presents a discussion of the role that the HURTC has played in the training of rehabilitation personnel. The article also discusses several unique aspects of the training model and strategies that result in positive outcomes for minority professional participation in various aspects of the rehabilitation process.

The HURTC has developed and implemented a unique training model designed to prepare minority trainees, including persons with disabilities, to participate in the work force in leadership positions. The primary goals for the Howard University Scholar Trainee model are to provide training that prepares students from diverse backgrounds to work with individuals with disabilities and their families and to provide a vehicle to (a) expose trainees to a wide range of research experiences and community resources,(b) facilitate student interaction with professionals from various community-based agencies, and (c) enhance the professional growth and development of program participants.

Introduction

The Office of Special Education and Rehabilitative Services (OSERS) and professional organizations such as the National Rehabilitation Association and the Council of Exceptional Children have substantiated the need to increase the preparation of minority individuals to meet the challenges in America for the year 2000 and beyond (Walker, Orange, & Rackley, 1993). These challenges include the provision of rehabilitation and related services for underserved populations with disabilities. The Commissioner of the Rehabilitation Services Administration (RSA) acknowledged the nationwide shortage of well-trained field service staff in rehabilitation counseling in 1992. In an RSA funded Survey of Personnel Shortage and Training Needs in Vocational Rehabilitation, Pelavin Associates (1992) reported that the position of General Rehabilitation Counselor was first among 16 occupations in Vocational Rehabilitation agencies where a greater than average vacancy rate indicated labor shortages (Kundu & Dutta, 1995).

The passage of Public Law 94-142 and its amendments, the Individuals with Disabilities Act (Public Law 101-476) and the Americans with Disabilities Act (Public Law 101-336), have provided expanded educational opportunities for students with disabilities. The Individuals with Disabilities Act (IDEA-Public Law 101-476) identified the needs for educational resources, special education, and the training of allied health professionals. Similarly, Section 21 of the 1992 Amendments to the Rehabilitation Act (Public Law 102-569) requires that persons with disabilities be served by qualified rehabilitation counselors and emphasizes the urgent need for preparing counselors and other personnel who are members of minority groups (Kundu & Dutta, 1995). Thus, there is a need to train leaders, researchers, and service providers at the predoctoral and postdoctoral levels.

The Howard University Research and Training Center for Access to Rehabilitation and Economic Opportunity (HURTC) is funded by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education. The program of the Center focuses on an interdisciplinary collaborative approach to the needs of persons from multicultural communities with disabilities. The mission of the Center is to implement research and training activities that facilitate the attainment of maximum potential by persons from diverse racial/ethnic groups (including African Americans, Hispanic Americans, Native Americans,

Americans of Asian descent, and Pacific Islanders. The mission of the Center encompasses four focal areas: (a) assessing through research the specific needs and status of persons with disabilities from multicultural communities, (b) reducing barriers through the development of appropriate service delivery models, (c) facilitating greater consumer empowerment and independence through employment and self-advocacy and, (d) facilitating the training of persons from diverse cultures in the fields of rehabilitation and related services. The HURTC has provided financial assistance and training for professional preparation of minority students and professionals at the undergraduate, graduate, and postgraduate levels by granting them the opportunity to enhance their leadership, research, and training skills. This article presents a discussion of the role that the HURTC has played in the training of rehabilitation personnel. The article also discusses some unique aspects of the training model and strategies that result in positive outcomes of minority professional participation in various aspects of the rehabilitation process.

Challenges Faced by Trainees

Although persons who are members of racial and ethnic minority groups encounter the same challenges as their white counterparts, they also face special and unique problems because of socioeconomic, health, cultural, and psychosocial factors. In addition to the health and socioeconomic challenges encountered by individuals with disabilities, minority people with and without disabilities (including African Americans, Hispanic Americans, Native Americans, and Asian Americans) are also confronted by prejudice, discrimination, and economic barriers related to their racial/ethnic group membership (Walker, Orange, & Rackley, 1993; Walker & Brown, 1996). These barriers continue to exclude a great number of minority persons from full participation in the educational process as well as other aspects of American life.

A number of research studies have been conducted that examined critical factors related to disability, ethnicity, health status, and poverty. For example, research conducted by Bowe (1991); Thornhill and Hoffang (1988); and Walker, Asbury, Rodriguez, and Saravanabhavan (1991) has documented that disability is significantly higher among African Americans and other minority groups. The poverty rate for African Americans (31.3%) and Hispanic Americans (29%) is almost three times as high as it is among White Americans (11%). Data concerning poverty rates are consistent across all age groups. The correlation between low socioeconomic status and disability is well documented; thus, low socioeconomic status families are at greater risk for disabilities throughout their life span (including the prenatal, perinatal, and postnatal periods). Since 1980, the number of poor minority children and other dependent populations has increased substantially (Walker, Asbury, & Saravanabhavan, (1996); Asbury, Walker, Maholmes, Rackley, & White, 1991).

Both disabled and non-disabled minority students face excessive economic burdens, and therefore, access to financial support for undergraduate and graduate training is frequently unavailable. In many instances, education can only be acquired through such extreme measures as holding full-time employment while attending school and/or acquiring substantial debt as the result of the students' need to finance their own education. A substantial number of these students require longer periods for completion of their degrees, which in turn, leads to high attrition rates (Kunda & Dutta, 1997).

Moreover, the majority of low income and minority students who are actively pursing higher education are typically the first from their families to attend college. Other barriers, including language limitations, psychosocial factors, and/or peer pressure, interact to limit access to resources for students from culturally diverse backgrounds. The lack of available resources (e.g., educational information, financial support, technology associated with computers and other equipment) further hinders their success at institutions of higher education.

Peer pressure also has a significant impact on students. Many students are under tremendous pressure from their peers to divert their efforts from obtaining skills needed to prepare them to compete in college. Many students succumb to pressures that divert their efforts from acquiring skills necessary for successfully completing their college education. During secondary school and college years, the influence of peers and friends has substantial impact on behavior and is, perhaps, the greatest competitor to the family's impact (Kunjufu, 1988).

Students not only interact extensively with their peers, they also learn social skills and behaviors and develop a sense of group belonging. The peer group informs its members which social mores are encouraged and socially acceptable (such as creating innovative 'hip hop' rap lyrics, dazzling social dances, slick slang, street smarts, the wearing of designer clothes and footwear). It also bestows labels such as "nerds" and may even discourage the pursuit of scholarly endeavors (Hare & Hare, 1991; Kunjufu, 1988). Students are extremely sensitive to the messages from their peers necessitating the development of programs and models to counteract negative peer influences.

The needs of minority individuals and the racial cultural factors that influence the manner in which they interpret, organize, and interact with their environment must also be considered. The impact of family, tradition, cultural background, and world view on their perception of health, disability, education, and the rehabilitation system must be incorporated into training programs, curricula, and intervention approaches (Brodwin, 1995; Walker, Orange, & Rackley, 1993). It has been reported that minority persons and students with disabilities become more responsive to learning when their cultural mores are respected (Page, 1996; Whitlock, 1996).

Another challenge faced by students with disabilities and those from low income and culturally diverse groups is the lack of role models who come from similar environments and have endured similar experiences. The scarcity of positive role models available for emulation leaves this population with little optimism relative to coping and succeeding in an aggressive society. The presence of positive role models in the lives of persons from culturally diverse communities enhances their social growth and development, as well as provides assistance, guidance, and direction.

Minority students, including students with disabilities, face a number of challenges that must be addressed in the design of effective training programs. Through their interaction with role models and professionals, minority students with and without disabilities may be able to formulate career goals and develop strategies for pursuing career objectives. This suggests a need for training models that provide opportunities for students with disabilities, individuals from diverse culturally backgrounds, and low-income groups to (a) develop skills and competencies, (b) develop support systems, (c) network with peers and professionals and (d) develop linkages to the world of work.

The Howard University Scholar Training Model: An Overview

As we approach the 21st Century, America is faced with the challenges of utilizing the talents and abilities of all persons within a diverse society. The mission of the Howard University Research and Training Center for

Access to Rehabilitation and Economic Opportunity is to implement research and training activities that facilitate the attainment of maximum potential by persons from diverse racial/ethnic groups (including African Americans, Hispanic Americans, Native Americans, Americans of Asian descent, and Pacific Islanders). The HURTC has developed and implemented a unique training model designed to prepare minority trainees, including persons with disabilities, to participate in the work force in leadership positions.

A significant challenge facing the field of rehabilitation is the training of students with disabilities, some of whom may be from minority groups, to more effectively meet the needs of persons with disabilities and their families (including underserved populations). A number of models have been implemented that emphasize educational, clinical, leadership, and research training in a variety of college-based programs (Payne, 1986; Sanders, 1990; Tureson, 1986; Walker, 1987a, 1987b, 1988, 1990, 1991).

In response to the need for additional personnel (including special education teachers, rehabilitation counselors, administrators, university faculty, service providers, and researchers), the HURTC has developed a unique training model designed to prepare minority trainees at the professional and postdoctoral levels.

Purpose and Goals

The primary goals for this training model are to provide training that prepares students from diverse backgrounds to work with individuals with disabilities and their families, and to provide a vehicle that will (a) expose trainees to a wide range of research experiences and community resources, (b) facilitate student interaction with professionals from various community-based agencies, and (c) enhance the professional growth and development of program participants.

The Howard University Scholar Training Model focuses on a broad base of theoretical, conceptual, and practical knowledge and skills. Program trainees acquire competencies in a variety of areas relative to the needs of the economically disadvantaged and minority individuals with disabilities. Specific skills include the following:

- Understanding theories, concepts, and issues pertinent to the needs of culturally diverse populations, including individuals with disabilities.
- Developing the ability to design, implement, and analyze research

relative to the rehabilitation needs of people with disabilities and their families;

- Understanding the psychosocial and sociocultural needs of underserved populations (including persons with disabilities);
- Developing a sensitivity to the bilingual/bicultural needs of culturally diverse populations and their families;
- Developing skills in the areas of assessment, curriculum development, instructional and management strategies; and
- Developing appropriate professional attitudes that complement performance and proficiency levels.

Program Components and Participants

The HURTC scholar training program has three components: (a) the Young Scholars Program, (b) the Predoctoral Program, and (c) the Postdoctoral Fellowship Program.

The Young Scholars Program is designed primarily for undergraduate students with disabilities from low-income groups and diverse cultural communities. Nine undergraduate students have participated in this program. These trainees have a variety of disabilities and qualify for this program without any restrictions concerning their chosen field of study, major, or discipline. The participants' disabilities range from learning disabilities to physical and cognitive disabilities, including traumatic brain injury and mental health challenges.

Graduate students in the Predoctoral Program must have a bachelor's degree in rehabilitation or a related field. Over 40 graduate students have successfully participated in this unique program. These trainees are pursuing master's and doctoral degrees in rehabilitation and related areas such as special education, counseling and school psychology, social work, social psychology, and communication disorders. Most of the trainees were recruited from Howard University. However, students from other colleges and universities participate in various aspects of the program such as research seminars and field trips.

In addition to the Predoctoral and Young Scholars Programs, the HURTC offers a Postdoctoral Fellowship for young professionals from culturally diverse backgrounds. Since the initial implementation of this component, 11 trainees have been the recipients of this challenging award.

During the first four years, fellows were awarded six month fellowships, but in 1993 fellowships were reduced to three months. Each candidate worked closely with the Center Director, Director of Research, and Research Associate with regard to the implementation of Center related and independent research projects. Fellows are able to enhance their research, leadership, and training skills relative to effectively meeting the needs of persons with disabilities. The majority of the fellows (including persons with disabilities) were employed at Historically Black Colleges and Universities (i.e., Atlanta University Center, Southern University Baton Rouge, Virginia State University, South Carolina State University, the University of Maryland Eastern Shore, Howard University, Coppin State College, and Bethune Cookman College) and other institutions of higher education with significant minority presence (including City University of New York and the University of South Florida). This professional experience enabled the fellows to enhance their research, leadership, and training capabilities and apply those skills at their universities and colleges to more effectively meet the needs of persons with disabilities at their universities and colleges.

Program Elements and Unique Features

As may be seen from Figure 1, a unique feature of the Howard University Scholar Training Model is the interface, collaboration, and partnership of Howard University units, the HURTC Mentorship Team, the HURTC National Network, and colleges and universities in various regions of the United States. Another unique aspect of the model is the enhancement of leadership, research, and training skills via the interface, collaboration, and support of Center staff, graduate and undergraduate students, and high school students with disabilities and their families.

Each entity facilitates the training and subsequent employment of program participants. Undergraduate, graduate students and postdoctoral fellows work with the HURTC Mentorship Team and support staff with regard to the development of various research and training activities. Through collaboration at all levels, a communal and nurturing environment is created. High expectations are placed upon program participants. In addition to formal evaluations, students are provided continuous feedback regarding their accomplishment of various tasks.

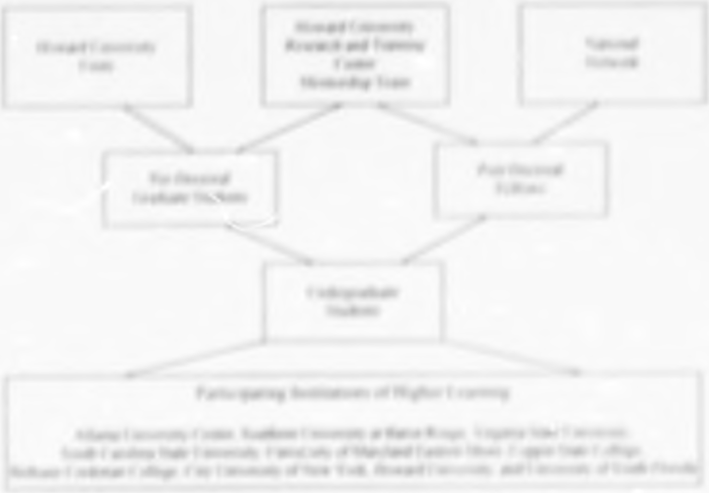

Howard University Team
Howard University Research and Training Center Mentorship Team
National Network
Pre-Doctoral Graduate Students
Post-Doctoral Fellows
Undergraduate Students
Participating Institutions of Higher Learning
Atlanta University Center, Southern University at Baton Rouge, Virginia State University,
South Carolina State University, University of Maryland Eastern Shore, Coppin State College,
Bethune-Cookman College, City University of New York, Howard University, and University of South Florida

Figure 1. Howard University Scholar Training Model

Several strategies have been implemented in response to the National Institute on Disability and Rehabilitation Research mandates for increasing the pool of minority professionals in leadership positions in the fields of rehabilitation, special education, and related services. Trainees are provided numerous opportunities to develop professional skills. These experiences include (a) reviewing relevant literature on various NIDRR priority research topics; (b) assisting in the development of questionnaires, collection and encoding research data for analysis by computers using various statistical computer software programs (e.g., SPSSX and SAS); (c) analyzing data and writing results for reports; (d) selecting and presenting current research topics at local, regional, and national leadership development conferences, roundtables, seminars, and workshops; (e) participating in field visits to community sites, other universities, and various federal, state, and local government agencies, (e.g., United States Congress, National Institute on Disability and Rehabilitation Research, Office of Special Education and Rehabilitation Services, the Rehabilitation Services Administration, the President's Committee on Employment of Persons with Disabilities); (f) developing skills in grant writing and proposal preparation; (g) publishing articles and research findings; and (h) presenting at professional national, regional, and state rehabilitation conferences. Figure 2 depicts the experiences that lead to the development of specific skills and competencies and employment outcomes for program participants.

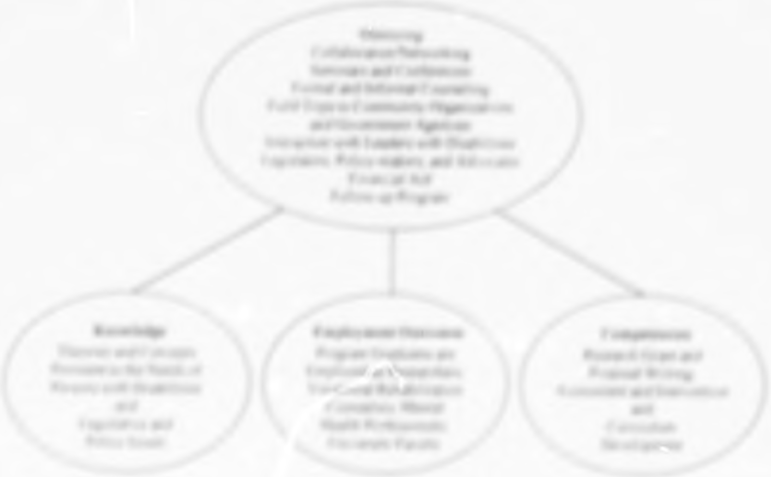

Mentoring
Collaboration/Networking
Seminars and Conferences
Formal and Informal Counseling
Field Trips to Community Organizations
and Government Agencies
Interaction with Leaders with Disabilities
Legislators, Policy makers, and Advocates
Financial Aid
Follow-up Program
Knowledge
Theories and Concepts
Pertinent to the Needs of
Persons with Disabilities
and
Legislative and
Policy Issues
Employment Outcomes
Program Graduates are
Employed as Researchers,
Vocational Rehabilitation
Counselors, Mental
Health Professionals,
University Faculty
Competencies
Research Grant and
Proposal Writing
Assessment and Intervention
and
Curriculum
Development

Figure 2. Elements and Outcomes of the Howard University Scholar Training Model

Trainees are also provided numerous opportunities to become actively involved in community activities. These experiences include (a) serving as role models, tutors, and mentors for students with disabilities and other underserved populations from low, socioeconomic backgrounds; (b) developing and conducting workshops devoted to such critical issues as self-esteem, conflict resolution, sexuality, peer pressure, employment, and grooming with various risk groups (e.g., the Washington, D.C. Potomac Job Corps, the D.C. Church Association for Community Service) and various middle and high schools throughout the Washington, D.C., metropolitan area; (c) developing skills in planning and coordinating conferences and satellite teleconferences; and (d) providing cultural diversity training for state rehabilitation agencies and other personnel.

BEST COPY AVAILABLE

Program Outcomes

After successful completion of the Howard University Scholar Training Program, participants are prepared to undertake real world challenges. A number of the Young Scholars have graduated and are currently matriculating in graduate rehabilitation related programs such as that at the University of New Mexico. Others have elected to enter the work force.

Predoctoral trainees have completed various master's and doctoral programs at Howard University and now serve in a variety of capacities after gradication. Predoctoral program participants are employed as university faculty at major institutions such as Yale University, Purdue University, and Southern University-Baton Rouge. In addition, program graduates are employed in a variety of public and private school districts and rehabilitation agencies as counselors, researchers, mental health professionals, and educators. Based on the research experience and training opportunities acquired at the HURTC, postdoctoral fellows have contributed to the expansion of their universities and agencies through the development of a number of federally funded projects, including programs that focus on rehabilitation counseling, aging, and personnel preparation in the area of special education.

Conclusion

Research conducted by the Hudson Institute (1987) identified several startling trends in regard to the American work force as the year 2000 approaches. These trends include the following:

- The population and the work force will grow more slowly.
- The average age of the work force and the population will rise and the pool of young workers entering the labor market will shrink.
- Minority persons will be a larger share of new entrants into the labor force. It is projected that by the year 2000 this trend will escalate.

The Hudson Report (1987) suggested that future jobs will demand much higher skill levels than the jobs of today. These trends will lead to both higher and lower unemployment: more joblessness among the least skilled and increased employment opportunities for individuals with higher education and leadership abilities.

Current trends and challenges of the immediate future make it necessary to improve the educational preparation of all present and future workers. There is a need to integrate persons with disabilities, the economically disadvantaged, and ethnic minority workers fully into the economy. Given the pressing societal and economic demands, the shrinking number of young people, the rapid pace of industrial change, and the ever-rising skill requirements of the emerging economy, it is essential that America respond to the task of fully utilizing the potential of the economically disadvantaged and minority persons with disabilities.

As the year 2000 approaches, it is critical to see an increase in the number of special education and rehabilitation personnel. It is also critical that these persons are prepared and available to serve the needs of all persons with disabilities and their families. The HURTC is founded on the premise that an interdisciplinary collaborative approach must be implemented in order to effectively respond to the needs of the targeted population. This training model provides trainees with a quality education, provides support services within the university, and provides the opportunity to enhance their professional growth and development through the increased research and leadership capabilities. It is felt that the Howard University Scholar Training Model has a number of features that may be adapted by other training institutions. The Howard University Research and Training Center for Access to Rehabilitation and Economic Opportunity is available to provide technical assistance and support to other institutions with regard to the replication of this training model.

References

Asbury, C., Walker, S., Maholmes, V., Rackley, R., & White, S. (1991). *Disability prevalence and demographic association among race/ethnic minority populations in the United States: Implications for the 21st Century.* Washington, DC: Howard University Research and Training Center.

Bowe, F. (1991). *Black adults with disabilities: A portrait.* Washington, DC: The President's Committee on Employment of People with Disabilities.

Brodwin, M. G. (1991) Barrier to multicultural understanding: Improving university rehabilitation counselor education programs. In S. Walker, K. A. Turner, M. Haile-Michael, A. Vincent, & M.D. Miles (Eds.), *Disability and diversity: New leadership for a new era* (pp. 39-44). Washington, DC: President's Committee on Employment of People with Disabilities.

Hare, N., & Hare, J. (1991). *The miseducation of the Black child.* San Francisco: The Black Think Tank.

Hudson Institute. (1987). *Workforce 2000: Work and workers for the 21st century.* Indianapolis, IN: Hudson Institute.

Kundu, M., & Dutta, A. (1995). Implementation of rehabilitation counselor training programs at historically black colleges and universities. In S. Walker, K. A. Turner, M. Haile-Michael, A. Vincent, & M.D. Miles (Eds.), *Disability and diversity: New leadership for a new era* (pp. 85-12). Washington, DC: President's Committee on Employment of People with Disabilities.

Kunjufu, J. (1984). *Developing positive self-images and discipline in Black children.* Chicago: African American Images.

Payne, K. T. (1986). A model for training speech-language pathologists to meet the unique needs of minority individuals. In S. Walker, F. Z. Belgrave, A. M. Banner, & R. Nichols (Eds.), *Equal to the challenge: Perspectives, problems, and strategies in the rehabilitation of the nonwhite disabled* (pp. 98-100). Washington, DC: Howard University.

Pugo, D. (1996, February 8). Two cultures one pedagogy: Teaching history from black and Hispanic perspectives. *Black Issues in Higher Education, 13*(25), 10-11.

Sanders, C. D. (1986). A college-based rehabilitation training program for working with the nonwhite disabled. In S. Walker, F. Z. Belgrave, A. M. Banner, & R. Nichols (Eds.), *Equal to the challenge: Perspectives, problems, and strategies in the rehabilitation of the nonwhite disabled* (pp. 91-93). Washington, DC: Howard University.

Thornhill, H. L., & [illegible], D. A. (1988). *Poverty, race and disability.* In S. Walker, J. E. Fowler, R. W. Nichols, & K. Turner (Eds.), *Building bridges to independence: Employment successes, problems, and needs of Black Americans with disabilities* (pp. 138-156). Washington, DC: The President's Committee on Employment of People with Disabilities.

Vernon, S. T. (1986). Providing access for nonwhite disabled students to community college programs. In S. Walker, F. Z. Belgrave, A. M. Banner, & R. Nichols (Eds.), *Equal to the challenge: Perspectives, problems, and strategies in the rehabilitation of the nonwhite disabled* (pp. 100-101). Washington, DC: Howard University.

Walker, S. (1987a). *Howard University research and training center for access to rehabilitation and economic opportunity* (Project Award No. H133B80079-89). Washington, DC: National Institute on Disability and Rehabilitation Research.

Walker, S. (1987b). *Howard University model to prepare teachers of minority and bilingual/bicultural children with disabilities* (Project Award No. G008715622-88). Prepared for the U.S. Department of Education. Washington, DC: Government Publishing Office.

Walker, S. (1988). Toward economic opportunity and independence: A goal for minority persons with disabilities. In S. Walker, J. W. Fowler, R. W. Nichols, & K. Turner (Eds.), *Building bridges to independence: Employment successes, problems, and needs of Black Americans with disabilities* (pp. 184-207). Washington, DC: The President's Committee on Employment of People with Disabilities.

Walker, S. (1990). *Howard University personnel preparation model to meet the needs of minority and bilingual/bicultural children with disabilities* (Project Award No. H029B00029-90). Prepared for the U.S. Department of Education. Washington, DC: Government Publishing Office.

Walker S. (1991). *Howard University young scholars fellowship program* (Project Award No. H133B80079-91-C). Washington, DC: National Institute on Disability and Rehabilitation Research.

Walker, S., Asbury, C. A., Rodriguez, S., & Saravanabhavan, R. C. (1991). *An examination of variables related to the cost of purchased rehabilitation services relative to the needs of persons with disabilities from diverse ethnic backgrounds*. Washington, DC: The Center for Disability and Socioeconomic Policy Studies.

Walker, S., Asbury, C. A., & Saravanabhavan, R. C. (1996). *Prevalence of disabling conditions among diverse racial/ethnic groups in the United States*. Washington, DC: Howard University Research and Training Center.

Walker, S., & Brown, O. (1996). The Howard University research and training center: A unique resource. *American Rehabilitation*. Washington, DC: Rehabilitation Services Administration.

Walker, S., Orange, C., & Rackley, R. (1993). A formidable challenge: The preparation of minority personnel. *Journal of Vocational*

Rehabilitation, 8(1), 46-53.

Wilbeck, D. E. (1996, September 21). Higher education's learning disabled battle: Myths, stereotypes. *Black Issues in Higher Education, 13*(15), 22-24.

Authors' Note: For additional information contact Drs. Walker or Rackley at the following addresses: Dr. Sylvia Walker, Director, Howard University Research and Training Center, 2900 Van Ness Street, N.W., Holy Cross Hall, Suite 100, Washington, DC 20008. Phone [illegible]; Fax: [illegible]; TDD: [illegible]; E-mail: [illegible]. Dr. Reginald Rackley, Assistant Professor, Southern University, Department of Psychology, Baton Rouge, LA [illegible]. Phone: [illegible]; Fax: [illegible]; E-mail: [illegible].

A Strategy to Improve Employment Outcomes For Persons Who Are Blind or Visually Impaired

---

John H. Maxson, Lynn W. McBroom,
Adele Crudden, Gil Johnson, and Karen Wolffe

Mississippi State University
Rehabilitation Research and Training Center
on Blindness and Low Vision

Over its 17 year existence, the RRTC on Blindness and Low Vision has targeted its emphasis on affecting the employment preparation and job placement of persons who are blind or severely visually impaired. In 1994, the American Foundation for the Blind (AFB) launched an employment initiative, and a partnership was formed to attempt to bring about a "systems change" that created action plans that accurately analyze problems and effectively target vehicles for change in multiple systems.

In January, 1995, AFB convened an Employment Summit that included leaders from the United States and Canada. The summit identified issues that affected the participation of persons who are blind or visually impaired and in the labor force. The issues were then brought together under two large headings:

A. Issues Affected by Factors External to Rehabilitation and Consumer Systems

B. Issues Related to the Rehabilitation System, Consumer Organizations, and Availability of Training

Using these issues as a springboard for action, the RRTC and AFB co-sponsored a national meeting in March, 1996, in Washington, D.C., to examine these issues in depth and to formulate a plan and timetable to effect systems change. The timetable has been implemented at this time.

Introduction

In recent years, there have been countless research studies, articles, and reports serving to identify issues related to the employment circumstances of persons who are blind or visually impaired. This body of work has significantly contributed to our overall understanding of the barriers faced by those who are blind or visually impaired in the process of obtaining skills, seeking employment, securing and maintaining employment, and enhancing their careers.

This paper does not attempt to further enumerate the employment-related barriers faced by persons who are blind or visually impaired, but rather looks toward the measures that must be collectively undertaken if positive change is to take place. And more specifically, those measures that can most effectively respond to the unique employment-related needs of persons who are blind or visually impaired in North America are examined.

The paper reviews current obstacles to full employment in North America as viewed by professionals in service to persons who are blind in public and private not-for-profit sectors (including education and rehabilitation) and consumer organizations of persons who are blind or severely visually impaired. Strategies are then suggested to overcome the obstacles, and agencies or organizations are suggested to implement the strategies. The RRTC and AFB are collaborating to follow along and support the implementation phase by the participating agencies and consumer organizations.

There have been numerous studies documenting the high unemployment rate of people with visual impairments. In 1991, [illegible] estimated that only 30 percent of the working age population with a visual impairment were employed. Further, Kirchner and Peterson (1988) reported that less than one-third of the working age population with visual impairments were in the labor force; in stark contrast, approximately three-fourths of the general U.S. population was in the work force. Whatever the exact numbers may be, people with visual impairments face much higher unemployment rates than the general population.

The high unemployment rate has been attributed to a number of barriers faced by people with visual impairments. Barriers include poor self-concept, employer resistance to hiring persons with disabilities, problems with transportation, insufficient vocational training and career planning experiences, state of the economy, disincentive barriers, absence of role models; dearth of consumer awareness groups; unawareness of vocational potential and opportunities; attitudes of rehabilitation providers; inadequate numbers of rehabilitation providers; poor job search strategies; limited resources for purchasing assistive devices; dependent and passive attitudes; [illegible] esteem and fear of failure; tendency to accept others' decisions; stereotypes and prejudices; and economic disincentives towards employment ([illegible], 1985; Salomone & Paige, 1984; Wolffe, Roessler, & Schriner, 1992). Rehabilitation providers are faced with heavy caseloads; demands for case closures; increasing numbers of clients with multiple disabilities; overemphasis on segregated employment settings; and prevocational evaluation and training services that teach dependence (Link, 1975).

Along with barriers, a number of solutions have been proposed. Possible solutions include conducting additional research to identify population demographics; utilizing community vocational and technical programs; training rehabilitation providers in placement techniques; increasing the recognition of placement as a skilled and professional activity; improving evaluation of consumer skills; increasing participation in community vocational education or employment; increasing post-employment services; developing public awareness activities to influence positive images of persons with visual impairments; improving coping, daily living, and personal skills; improving job search strategies; increasing the opportunities for peer mentoring, parent training, and training for professionals; providing financial incentives for placement; using high technology equipment; utilizing nonprofessional resources; involving employers who can report on successful hiring experiences; developing materials depicting successfully employed persons with visual impairments; providing education about career opportunities; and locating resources for purchasing assistive devices (Wolffe, Roessler, & Schriner, 1992; Young, 1990).

A number of these barriers to employment are individual in nature, such as self-concept, attitudes, and personality. Possible solutions to these problems would require individual intervention to either change the individual or work around the barrier. Other barriers require intervention on a larger level such as effecting change in transportation systems, improving the national economy, or changing the public's attitude towards hiring individuals with disabilities. These barriers require solutions that influence many levels within the community and nation. A barrier such as the public's negative attitude may [illegible] the [illegible] [illegible] of an individual level, each employer could be [illegible] brought about in that employment [illegible] subsequent change could be [illegible]

With all the societal barriers to [illegible] some type of organization is needed [illegible] action. This chapter reports on a [illegible] [illegible] and possible solutions [illegible] [illegible] and goals both thought and [illegible] reduce the barriers to employment. [illegible]

[illegible]

In the January, 19[illegible] Employment [illegible] following issues were determined to be [illegible] change to affect employment [illegible] [illegible]

I. Issues Affected by Factors [illegible] Consumer Systems

Resolution of these issues will [illegible] larger societal systems (i.e., the [illegible] education and rehabilitation. The [illegible] public information, corporate and [illegible] information resources.

1. Building Colleague [illegible] Providers

How can consumers and [illegible] and how can employers [illegible] work in an ever changing [illegible]

2. Hiring Policy in [illegible]

How can timely and reliable [illegible] regarding the [illegible] and [illegible] who are [illegible]

3. Significantly Altering Public [illegible]

How can the general public [illegible] capabilities and [illegible] respectively [illegible]

2. Reexamining Public Benefits Policies Affecting Disincentives to Work

   a. How can public policy be revised to remove disincentives to accepting entry level jobs posed by the risk of permanent loss of financial and/or medical benefits?

   b. How can public policy remove conflicts between eligibility requirements and outcome expectations of various public programs?

B. Issues Related to the Rehabilitation System, Consumer Organizations, and the Availability of Training

Resolution of these issues will require changes within the Rehabilitation System, which is broadly defined to include several partly overlapping subsystems including consumer organizations, public and private rehabilitation agencies, university training programs, fee service providers, etc.

1. Acquiring Access to Information Through Technology

   a. How can access to electronically generated and stored information be maintained and improved given graphical displays and the use of mouse devices and touch screen displays?

   b. How can the availability of access technology and training in its use become more timely?

2. Confronting the Need to Upgrade Attitudes and Skills of Rehabilitation Professionals

   a. What actions will assure that University Training Programs of Vocational Rehabilitation Professionals [illegible] [illegible] [illegible] on Implications of Blindness, Realities of the Labor Market, and the Role of the Professional in Job Placement?

   b. What actions will assure that professionals maintain an accurate and current understanding of the requirements for employment in a dynamically changing labor market?

7. [illegible]
    a. [illegible]
    b. [illegible]
    c. [illegible]
8. [illegible]
    a. [illegible]
    b. [illegible]
    c. [illegible]
9. [illegible]
    a. [illegible]
    b. [illegible]
10. [illegible]
    a. [illegible]

[illegible]

[illegible]

[illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

- [illegible]

- Collect data on the current training status of the new Vocational Rehabilitation for the Blind counselors. Suggested implementing organizations: National Council of State Agencies for the Blind and National Council of Private Agencies for the Blind and Visually Impaired. Time frame to accomplish: 1 year.

- Consider utilizing model programs that reduce paperwork and free up time for counselors. Suggested implementing organization: National Council of State Agencies for the Blind. Time frame to accomplish: 3 years.

- Implement a model for general role and responsibilities of the rehabilitation counselor for the blind and share the information among agencies. Suggested implementing organizations: National Council of State Agencies for the Blind and National Council of Private Agencies for the Blind and Visually Impaired. Time frame to accomplish: 2 years.

- Distribute exemplary practices information to keep vocational rehabilitation field staff up to date. Suggested implementing organizations: American Foundation for the Blind and The Canadian National Institute for the Blind. Time frame to accomplish: 2 years.

- Develop ways to include consumers in the training of rehabilitation counselors. Suggested implementing organizations: American Council of the Blind, National Federation of the Blind, and the National Council of State Agencies for the Blind. Time frame to accomplish: 3 years.

- Work with RRCEPs to develop regularly scheduled training programs in blindness for new staff and for continuing education for existing staff of public and private agencies serving persons who are blind or visually impaired. Suggested implementing organizations: National Council of State Agencies for the Blind and Mississippi State University. Time frame to accomplish: 3 years.

- Develop a component in all training programs, both in-service and pre-service, for knowledge and skills specific to job development and job placement with persons who are blind. Suggested implementing organizations: Mississippi State University, Western Michigan University, Alabama A&M University, and the Association for Education and Rehabilitation of the Blind and Visually Impaired. Time frame to accomplish: 2 years.

- Work with the Commission on Rehabilitation Counselor Certification to have a blindness add-on certification, or have the Association for Education and Rehabilitation of the Blind and Visually Impaired develop an added specialized certification for Certified Rehabilitation Counselors. Suggested implementing organization: Association for Education and Rehabilitation of the Blind and Visually Impaired. Time frame to accomplish: 2 years.

- Re-establish a national job placement training program for persons who are blind or visually impaired through the Rehabilitation Services Administration. Suggested implementing organizations: National Council of State Agencies for the Blind, the American Council of the Blind, and the National Federation of the Blind. Time frame to accomplish: 1 year.

- Work with existing counselor education programs to add blindness specific courses to their curriculum. Suggested implementing organizations: National Council of State Agencies for the Blind and the National Council of Private Agencies for the Blind and Visually Impaired. Time frame to accomplish: 2 years.

- Foster support among administrators in both public and private agencies for in-service training of counselors. Suggested implementing organizations: American Council of the Blind and the National Federation of the Blind. Time frame to accomplish: 3 years.

- Develop a program for certification of administrators of agencies serving persons who are blind. Suggested implementing organizations: National Council of Private Agencies for the Blind and Visually Impaired, the Association for Education and Rehabilitation of the Blind and Visually Impaired, and the National Council of State Agencies for the Blind. Time frame to accomplish: 3 years.

- Identify training competencies to be shared with administrators regarding minimal requirements and competencies for counselors serving persons who are blind. Suggested implementing organizations: Mississippi State University, Western Michigan University, Alabama A&M University, and the Association for Education and Rehabilitation of the Blind and Visually Impaired. Time frame to accomplish: 1 year.

- Implement a system for shared caseloads to allow counselors to attend training. Suggested implementing organization: National Council of State Agencies for the Blind. Time frame to accomplish: 2 years.

- Develop a model program for systematic sharing of labor market information for distribution to public and private agencies serving persons who are blind. Suggested implementing organization: American Foundation for the Blind. Time frame to accomplish: 2 years.

Conclusion

Bringing about systems change to improve employment outcomes for persons who are blind or severely visually impaired requires the commitment and cooperation of all parts of the blindness system. At this time, efforts are underway utilizing staff from the RRTC and AFB to secure the cooperation of various organizations to take specific actions. Through written and verbal contacts, approximately 14 separate groups have committed to work to bring about change. A follow-up meeting sponsored by the RRTC has been scheduled for 1999 in Washington, D.C., to review progress, timetables, and assignments as well as to invigorate participants in the change process.

References

Kirchner, C., & Peterson, R. (1988). Employment: Selected characteristics. In *Data on blindness and visual impairment in the U.S.* New York: American Foundation for the Blind.

Koestler, F. A. (1983). Visually impaired women and the world of work: Theme and variations. *Journal of Visual Impairment and Blindness, 77*, 276-277.

Link, H. J. (1975). *Placement and employment of the visually impaired: State of the art and identification of unmet needs. The New Outlook for the Blind, 69*(7), 320-324.

McNeil, J. M. (1993). *Americans with disabilities: 1991-92.* Washington, DC: U.S. Government Printing Office (U.S. Bureau of the Census).

Salomone, P. R., & Paige, R. E. (1984). Employment problems and solutions: Perceptions of blind and visually impaired adults. *Vocational Guidance Quarterly, 33*(2), 147-156.

Wolffe, K. E., Roessler, R. T., & Schriner, K. F. (1992). Employment concerns of people with blindness or visual impairments. *Journal of Visual Impairment and Blindness, 86*(4), 185-187.

Young, C. E. ([illegible]). How successful vocational rehabilitation counselors place clients in jobs: Results of a focus group. *[illegible]*, [illegible], 1-8.

Author's Note: For further information contact [illegible], Associate Director and Training Director, Research and Training Center on Blindness and Low Vision, Mississippi State University, P.O. Drawer [illegible], Mississippi State, MS [illegible]. Phone: [illegible]. Fax: [illegible]. TDD: [illegible]. E-mail: [illegible].

Participating Centers

Community Based Rehabilitation: University of Wisconsin - Stout, Menomonie ♦ American Indian Rehabilitation: Northern Arizona University, Flagstaff ♦ Enhancing Employability: University of Arkansas, Fayetteville ♦ Promoting Employment: Children's Hospital, Boston ♦ Rural Rehabilitation Services: University of Montana, Missoula ♦ Supported Employment: Virginia Commonwealth University, Richmond ♦ Vocational Rehabilitation Information Systems: West Virginia University, Morgantown ♦ Psychiatric Disability: University of Illinois at Chicago ♦ Vocational Rehabilitation and Mental Illness: Matrix Research Institute, Philadelphia ♦ Access to Rehabilitation and Economic Opportunity: Howard University, Washington, DC ♦ Blindness and Low Vision: Mississippi State University

Contributing Researchers

Nancy C. Arnold ♦ Richard C. Baron ♦ Brad Benson ♦ Karl F. Botterbusch ♦ Valerie Brooke ♦ Charles E. Coker ♦ Judith B. Cook ♦ Adele Crudden ♦ Roy C. Farley ♦ Sheila Lynch Fesko ♦ Steven L. Fullmer ♦ Howard Green ♦ Katherine J. Inge ♦ Cal Johnson ♦ Jennie R. Jordan ♦ Daniel R. Klammsky ♦ Catherine A. Marshall ♦ John H. Maxson ♦ Daniel C. McAlees ♦ Lynn W. McBroom ♦ Fredrick E. Menz ♦ Tom Olson ♦ Reginald Rackley ♦ Priscilla Leming Sanderson ♦ Kay Schriner ♦ Tom Seekins ♦ David Temelini ♦ Dale F. Thomas ♦ Sylvia Walker ♦ Richard T. Walls ♦ Paul Wehman ♦ Karen Wolffe

STOUT